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ABSTRACT

The manual provides a systematic set of procedures for planning, developing, and evaluating a guidance or pupil personnel services program in a school system. The report is presented in two parts; the first describes in some detail the various steps in the entire systems planning model. The essence of a systems approach is to orient planning around pre-stated goals and with evaluative data fed back into the system for the purpose of altering goals and/or programs for maximum effectiveness. The second section of the manual describes the implementation of the plan during the course of a school year to ascertain its workability. The manual might enable other school systems to carry out the planning function for pupil personnel services by adapting the systems approach to local needs and resources. References are included. (Author/SES)

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A SYSTEMS APPROACH TO THE DEVELOPMENT

OF

PUPIL PERSONNEL SERVICES

AN OPERATING MANUAL

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PROJECT SAGE FINAL REPORT

BEDFORD, MASSACHUSETTS

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A SYSTEMS APPROACH TO THE DEVELOPMENT OF PUPIL PERSONNEL SERVICES

AN OPERATING MANUAL

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A SYSTEMS APPROACH TO THE DEVELOPMENT OF PUPIL PERSONNEL SERVICES

INTRODUCTION

The demand for accountability in education has led to an increasing interest in systems approaches to the planning and development of educational programs. The essence of a systems approach is to orient planning around pre-stated goals with program functions linked directly to the attainment of these goals and with evaluative data fed back into the system for the purpose of altering goals and/or programs for maximum effectiveness. A second major aspect of the systems approach is the concern for comprehensiveness in planning. This means that any system is understood in its relation to larger systems and to smaller subsystems. Thus, no part of a system operates in isolation from other parts and both the operation of the parts and how those parts relate to each other and to larger systems is understood in the planning. Any educational system, therefore, that wants to hold itself accountable for its accomplishments or lack thereof needs to take some kind of systems approach to planning and evaluation.

While considerable effort has gone into the development of performance objectives in a wide variety of curricular areas and levels, and into improved planning for the delivery of instructional services, there has been relatively little development of pupil personnel services along systems lines. At the same time there has been a considerable shift of emphasis within pupil personnel toward the central task of learning around which school systems are organized. The need, therefore, to in-

tegrate these services into the related instructional subsystems of the school is of great importance.

In addition to this need to integrate pupil personnel services more closely to instruction, there is the considerable difficulty of establishing a basis for accountability when services are largely geared to meeting more affective than cognitive student needs. Indeed, there are few goals for pupil personnel services that can adequately be met by these services alone. Accountability for meeting these goals must somehow be shared with other subsystems in the educational enterprise, instruction being only the major one.

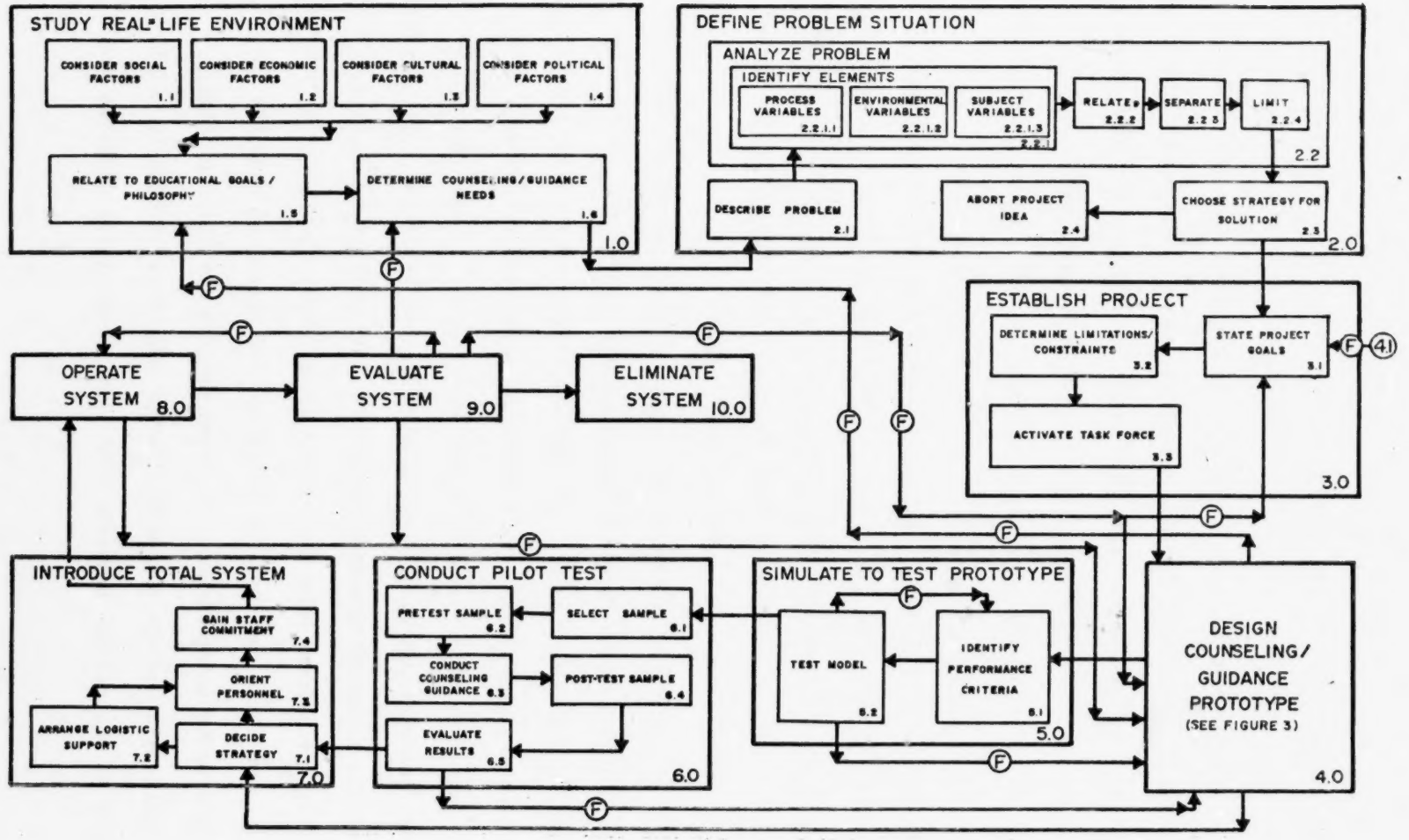
This project was conceived as an effort to meet the need for exploring the feasibility of a systems approach to pupil personnel services in the context of an entire school system. The grant for this undertaking was made for the purpose of planning, rather than implementation, and this report reflects the results of this planning effort.

Project Sage (Systems Approach to Guidance and Education) itself followed a systems model. However, in applying the model (Figure 1) specifications had to be adapted to the constraints of our situation and this led to a number of variations in what was done. In process the concept of what we were working toward was also altered. The net result of this somewhat experimental, trial and error, approach did enable us to identify some modifications in certain procedures that were not actually used in our planning.

In order to maximize the value of this report, therefore, we are presenting the report in two parts. The first part will describe in some detail the various steps in the entire systems planning model which we worked out in the course of the project year. This model

FIGURE 1

Counseling and Guidance Program Development System Model



From Ray E. Hosford and T. Antoinette Ryan, "Systems Design in the Development of Counseling and Guidance Programs," Personnel and Guidance Journal, Vol. 49, No. 3, Nov. 1970, p. 226

incorporates procedures that were developed elsewhere but which are directly applicable to this type of planning. The model also reflects the improvements that we were able to identify after some less successful procedures were first tried. In effect, then, this model represents a combination of procedures that were actually utilized and procedures that represent modifications of what was actually done in our local planning. In that sense, the model is more "ideal" than what we actually tried out.

In order for readers to see how the model was applied, however, the second part of the report will describe what was actually done during the course of the year, including presentations of most of the data that were collected. It will be evident how the "real life activity" varied from the systems model we are presenting.

The purpose of this report is to enable other systems to carry out the planning function for guidance or pupil personnel services by following a systems approach. Our own efforts to simulate or test these planning procedures have enabled us to develop sufficiently detailed specifications to enable others to follow the same approach or to adapt the approach readily to local needs and resources. The second part of the report will contain most of the illustrative material.

Where procedures have been incorporated from other sources, the reference to those sources will be cited. We recommend that the interested reader refer directly to those sources for further detail. The report will contain a general list of useful references to which any user of the systems approach will want to refer for detailed in-

formation on certain procedures. Our effort here has been to bring some of these varying approaches together in one integrated systems model.

THE SYSTEMS MODEL

The systems model for program development that evolved from our project is shown in Figure 2. This model essentially established a set of interrelated procedures which, when carried out sequentially, represent a systems approach to the planning, implementation, and evaluation of pupil personnel services. Obviously, however, the model can be applied to the development of other educational systems.

The model shown in Figure 2 was developed by combining elements of similar existing models, such as the one shown in Figure 1, and from the experiential learning on the project during which we actually worked through certain aspects of the planning function.

The purpose of this first section of our report, then, is to provide an operating manual for carrying out the various steps in this model. More detailed specifications are provided for some parts of the model than for others. There should be sufficient flexibility in each of the various procedures to permit adaptation to whatever local constraints on time and other resources exist.

One other general observation should be made clear at the outset. This model is designed to become an on-going operational part of any pupil personnel program. It is not intended to be a "one-shot" operation after which the job is done and the model can be retired. Rather, the model is intended for constant recycling, what is known as a "closed loop system," and shown by the feedback signal path from subsystem 11.0

A SYSTEMS MODEL FOR PUPIL PERSONNEL PROGRAM DEVELOPMENT

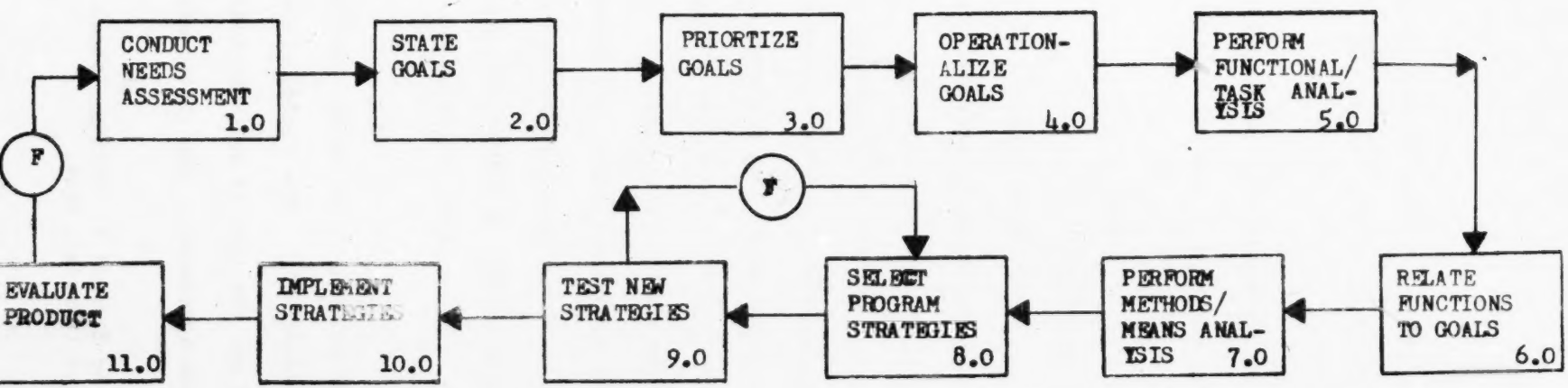


Figure 2

to subsystem 1.0. This will keep the system dynamic and changing as new needs are identified or as priorities change, or as certain programs are found to be ineffective.

The remainder of this part of the report will be devoted to more detailed specifications, including some additional flowcharts, of each of the 11 subsystems in this model.

NEEDS ASSESSMENT

A needs assessment is essentially the identification of client demand for services. The needs assessment model presented here[1] is based on decision maker validity. In other words, the needs assessment data is collected for decision makers to use in making decisions. If certain needs are to be met by an enterprise they will be met because decision makers in the enterprise decided on policies and programs to meet them. The involvement of decision makers throughout this systems approach will be evident from this report.

Figure 3 represents the needs assessment model. It contains 12 major operations. As in any of the models presented in this report, variations are possible, but having a model to depart from makes any set of procedures more systematic than it would otherwise be.

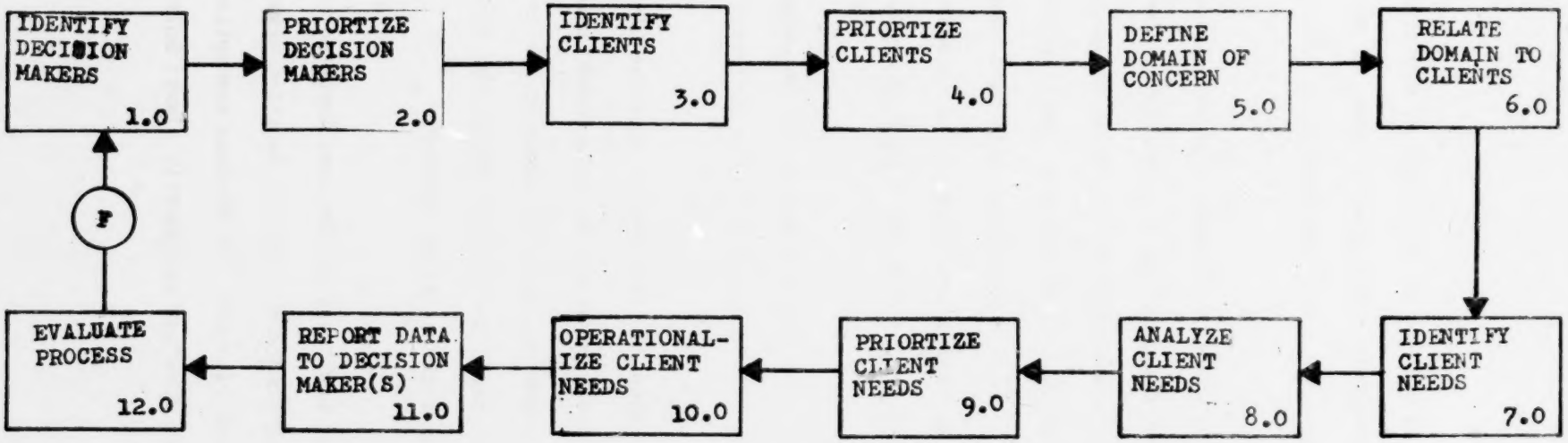
1.0 Identify Decision Makers

The system is implemented by whomever is going to take responsibility for conducting the needs assessment. This could, of course, be an important decision maker. If so, the list of decision makers would include the person doing the needs assessment. The list should be as

[1]Adapted from a model developed by Richard T. Coffing, School of Education, University of Massachusetts, Amherst, Mass.

NEEDS ASSESSMENT MODEL

Figure 3



complete as possible, ranging from members of the board of education to counselors and teachers. They should be identified by name, if individuals, or by the group if the group makes decisions as a group.

2.0 Priortize Decision Makers

The decision makers should be ranked from most important to least important. There is more than one way to consider importance, however, the list could be ranked by hierarchical importance, which would put someone like the Superintendent of Schools at the top. Or it could be ranked in order of the timing of need for particular data (who needs data first). Or the list could be ranked according to the necessity to attend to a particular decision maker in order for things to happen most effectively.

If the list is priortized in more than one way it can be merged by averaging the ranks or picking off the ranks from the different lists to establish an overall priority.

In the context of pupil personnel it is possible that the Director, for example, would emerge as the most important decision maker even though he would not be the most important decision maker in the total system. This would be a priority based on need for data. The director may, in fact, be the one to conduct the needs assessment.

3.0 Identify Clients

The clients to be identified are those of the most important decision maker. If you are working with more than one decision maker each should be asked, who are your clients? The obvious assumption that the clients are the students does not necessarily always hold true.

In any case, it is likely that each decision maker will have more than one set of clients. A complete list should be developed for each decision maker with whom you will work.

4.0 Priortize Clients

As with the priortization of decision makers, there are several ways to conceive of priorities. The importance of the client to the decision maker is the most obvious. The urgency of attending to certain clients, i.e. the level of dissatisfaction of certain clients, could be the basis for priortizing. Or the extent of the decision maker's ignorance of the needs of certain clients could be the basis. Clearly, the decision maker can identify and priortize clients in any meaningful way. Thus, the clients could be "non-college bound students" or some other specifically defined group.

5.0 Define Domain of Concern

The decision maker is also asked, What is your domain of concern? Here the intent is to have the decision maker(s) with whom you are working describe the domain or subsystem with which he is most concerned. This description should not be absolutely complete because that might tend to box in the clients too much when their responses are elicited. But the description should identify the major parts of the domain sufficiently to make it clear what is of concern.

In the pupil personnel services area, for example, the domain of concern to the decision maker might be the "high school guidance program." A description of this domain ought to include the major component parts of that domain such as college advising, program planning,

counseling, career guidance, etc. The final description must be cleared with the decision maker.

6.0 Relate Domain to Clients

This is a bridging process to insure that the clients of concern to the decision maker are directly involved with the domain of concern. For example, a given decision maker might include students, parents, and teachers on his list of clients. This decision maker may have more than one domain of concern, but the "guidance domain" would not relate to the teacher clients as clearly as the "instructional domain." This particular operation is in the model primarily to make explicit the need to clarify the relationship between domain and clients.

7.0 Identify Client Needs

First you establish contact with the highest priority client of the highest priority decision maker. Furnish the client with the description of the domain of concern of the decision maker. Then ask the client to imagine the domain in its desired state from his point of view. What would you desire this domain to be for yourself and others? This is a general description of the procedure to be followed.

Concretely you must decide how to establish contact with the clients. If the clients are students, they constitute a group that acts as individuals. In this case you would need to sample the group and generalize from the sample. In sampling from such a large group it is important that the sample be as representative as possible - boys and girls; college and non-college; all grade levels; etc.

The form of contact is another consideration. The procedures outlined here make it feasible to contact a relatively few number of clients on a one-to-one basis. Each client may generate a considerable amount of needs data that will be representative of many other students. Or the contacts could be made in small groups.

There is also the issue of how constrained you will make the form of the responses. By formalizing the general question posed above in a survey or questionnaire with several response possibilities you can collect much more data from more people with greater efficiency. However, you would lose in richness and diversity. Information that could not be encompassed in the standardized form would be lost. The individual contact with a few students can also have other benefits in the form of communicating interest and concern for student opinions in a personal way. In any case, local conditions will dictate somewhat how the contact with the client is made and the form in which the date will be elicited.

The data elicited needs to be recorded. Careful written notes on what is said or audio tapes would be two standard ways to record data. The audio tapes would need to be transcribed in whole or part for later use. Generally speaking, if the approach is made on an individual or small group basis as few constraints as possible should be placed on how needs are expressed by the clients.

8.0 Analyze Client Needs

Should the needs data be collected in some standard form such as a questionnaire, the process for analyzing this data would have been

built into the questionnaire. Undoubtedly some simple counting approach would be involved. Data collected in the form of notes or transcribed audio tapes is handled differently.

This data should be broken down into a series of unitary statements, one statement per line. For example, a client may make the following statement: "Well, I'd like to be able to drop into the guidance office and talk over personal things that are on my mind when I feel the need. I also want someone who can give me good information when I need it or can tell me where to get information. I want to be given straight advice on what courses count toward what programs and not be mislead. If I have a complaint about the school I'd like to be able to get a hearing from the counselor and expect that something will at least be tried to correct things." This statement would be broken down into a series of unitary statements like this:

talk over personal things
get good information from counselors
learn where to get good information
straight advice on courses for different programs
can express complaints about school
can get action on complaints expressed

This analysis should be checked with the client to be sure it is as complete as the client can make it. This process could be carried out by showing the lists to other clients and asking them to add to the list if they feel something is missing. This list should eliminate overlapping or duplicate statements. Just be sure that nothing is left

out that someone has included.

9.0 Priortize Client Needs

Once a complete list of needs statements is completed, the list should be given to the clients for priortizing. The same considerations must be made of how many to sample and in what way. However, it may be easier to prepare a form through which large samples of students could help establish priorities.

Throughout this systems approach the process of establishing priorities occurs several times. We have already noted that the decision makers were priortized. The necessity for this is clear. Every person and every situation that needs attention cannot usually be attended to when resources are scarce or at best not unlimited. Clients will have many different needs but the school or "domain of concern" cannot necessarily respond to all of those needs, or at least not respond adequately to all of them.

When lists to be priortized are not very long or not very complex, as is a list of decision makers, then some kind of rank ordering is a good way to proceed. When a list is very long and/or the items to be ranked are very complex then a more absolute rating scale for each item can be very useful. Rank ordering places items on a list in relation to each other but does not indicate how important a given item may be. A rating scale can identify each item in terms of the degree of importance attached to the item without regard for the importance of other items. In practice, of course, some combination of the two procedures may be necessary in order to establish that among many items, all con-

sidered to be of some importance, some are more important than others. Thus, in the case of client needs, the list could be ranked from most important to least important (or along dimensions of urgency or time), or each need could be rated in terms of a scale and the highest rated needs would become the most important relative to needs rated lower.

A useful rating system we developed utilized a four point scale with the importance of each point on the scale carefully defined. These definitions can be altered to fit tne type of items being rated. In the case of needs the rating scale could be defined like this:

1 - Highest Importance: If this need were not met it would cause me considerable difficulty and create further problems for me that would not develop if the need were being met.

2 - Important: If this need were not met I would have difficulty and possibly further problems as a result but not as troublesome as a failure to meet a #1 need.

3 - Desirable: If this need were met adequately it would make my life much better and more effective but I could still cope if it were not being met adequately.

4 - Useful: It would be useful to my life if this need were met, but if it were not met I would not be caused any real difficulty. In other words, I could get along fine without this need being met.

From a large number of such rankings each item on the list could have an average rank computed (probably to one or two decimals). Clearly, those needs with average rank of two (2) or less would be the needs that would be considered most important. Many needs statements in a

list like this will be found to be interrelated with other needs such that clusters of important needs can be identified. In any case, what is important in this step of the needs assessment is to determine which are the most important needs so that those needs will receive the most attention from the decision maker(s).

10.0 Operationalize Client Needs

This step is of considerable importance at other points in the overall system as well as in needs assessment. The procedure involved is to take the abstract, "fuzzy" needs statements and put them in terms that are directly observable behaviors or states. The question asked is: How would I know that need if I saw it?

The details of this procedure will be described under the section on operationalizing goals. These procedures, however, should essentially be carried out with the clients. In other words, the procedure is explained to your clients and they do the operationalizing with your help. Since this is a rather time consuming project, you obviously begin with the most important needs and deal exclusively with them. Should there be time to move to less important needs that is fine.

The procedure of operationalizing is important because needs will eventually be translated into objectives that must, in turn, be assessed as part of an evaluation. To do this requires that there be some behavioral evidence that is observable in order to know whether objectives are being attained and needs being met.

If a formal needs assessment is carried out then the operationalizing process here can be tied in to the operationalizing of goals

later as the two will be intertwined in any case.

11.0 Report Data to Decision Maker

Since the presupposition of this needs assessment model is that it is being conducted for a decision maker, it is obviously important to report the data to him. The data, of course, are reported for the domain of concern of each decision maker. The decision maker needs to know what data comes from what clients. Ultimately, the decision maker should receive in operationalized form the most important need of the most important client. The decision maker, it is anticipated, will then utilize this data to make decisions about policies and programs in the domain of concern.

12.0 Evaluate Process

Every system needs evaluative feedback so it can become self correcting. Needs assessment is no different. Your needs assessment may have "bugs" in it. One way to find this out, given the assumption of this model, is to find out how the data were used by the decision maker. The questions to be asked and analyzed are these:

What decisions were made subsequent to the provision of the data?

What data that were provided were used in making these decisions?

What data that were provided were not used in making these decisions?

What data were not provided but where decisions were made that could have utilized such data?

The highest possible efficiency and effectiveness of the process will be attained if all the relevant decisions utilized all the data

provided, no data was left unused in decision making, and no decisions were made for which there was no relevant data available. That seldom happens, but an evaluation will tell you how close you came.

The evaluative process, involving the decision maker as it does, can serve to modify the process of needs assessment as it is conducted for other decision makers or other clients later.

STATE GOALS

A goal is a statement of intent or directionality toward the attainment of a desired state or condition. Goal statements are always broad or abstract. They are necessary and important because they are a shorthand way of pointing toward a desirable end result.

One characteristic of goal statements is that they all sound important. This is a natural consequence of goals being statements of desired ends. It is likely to follow that if a goal is not achieved or not achieved effectively then certain undesirable consequences will occur. Because goals are important, almost by definition, it is important to do something about their attainment. That is where the subsequent steps in our system come in. But first we need to know what the goals of the enterprise are.

The first thing to be aware of is that ultimately goals are goals of <u>someone</u>. They are not disembodied abstractions handed down from on high. They are choices of direction that are made by a person or group. In any organization the goals are the goals of the decision maker(s) whether written down or in somebody's mind. In planning, then,

it is important that any set of goal statements for an enterprise or domain of concern meet with the support and approval of the most important decision makers in the enterprise.

Goal statements, of course, can originate from any source and the best sets of goal statements are those that result from the inputs of many different persons. But if a needs assessment has been conducted, the major source of goal statements can come from an analysis of needs. A need turned into a positive statement becomes a goal. Thus, the need, "to feel happy and secure," becomes the goal, "feeling happy and secure."

We are concerned here about goals for an enterprise and one way to begin developing such goals (assuming a start from scratch) is to ask various relevant persons to say what their goals are for the enterprise. Decision makers are the most important people to ask. Clients can and should be asked, although if client needs have been thoroughly assessed goal statements based on those needs should be relevant to the concerns of the clients.

Essentially, the process involves collecting a large number of such statements of intentionality, expressed insofar as possible as outcomes or end results, and then placing these statements in a single list that will be tested for its completeness with the important decision makers.

The process of goal stating is one that must take the total system into account in order for the goals to be both meaningful and integrated.

For example, goals for guidance or pupil personnel services need to be related to the overall goals of the school system, as well as to the goals of other major subsystems such as curriculum and instruction. Furthermore, the specific goals of the high school guidance program, for example, need to be related to the goals of the total guidance program at all levels. If goals do not exist for larger related parts of the enterprise, then you may need to give attention first to stating goals for the larger part(s) to which your part is most closely related. In most cases, this means you need total school system goals to be complemented by your pupil personnel subsystem goals.

Fortunately, goals do not need to be created from scratch. There are many existing sets of goal statements that can form the basis for the statement of goals that will be agreed upon for your part of the enterprise. Some of these goals statements will appear in the second part of this report. What needs to be done to make these goal statements relevant to your enterprise is to edit or reword them to suit your needs, or choose selectively from those available. The important thing in this particular part of the overall process is to come up with as complete a list as possible since your list will be priortized and the most important goals identified.

Educational goals have been classified generally into three broad categories: cognitive (knowing), affective (feeling), and psychomotor (doing).[1] These categories have provided a convenient way for both

[1]Bloom, Benjamin, A Taxonomy of Educational Objectives, Longman, Green, & Co., 1956.

differentiating goals and for creating an awareness of the fact that any given goal does not address itself to all important areas of human growth in educational settings.

A similar taxonomy has been created for guidance goals and we have utilized this taxonomy in building both goals and objectives for guidance and pupil personnel services. This taxonomy stems from the work of Frank Wellman, University of Missouri, in the funded National Study of Guidance several years ago.[2]

Wellman's taxonomy was intended to identify those domains in which guidance makes the major contribution. The three domains identified were the educational, the vocational, and the social. Within each of these domains goals and objectives are identified by categories that provide for immediate, intermediate, and long range goals. The categories are specified as follows:

1.0 Perceptualization Objectives: The development of awareness and differentiations of relevant environmental and self variables.

1.1 Environmental Orientation: Knowledge and understanding of educational, vocational, and social opportunities, requirements, and expectations.

1.2 Self Orientation: Knowledge and understandings of abilities, limitations, identities, feelings, and motivations relevant to educational, vocational, and social development.

2.0 Conceptualization Objectives: The process of analyzing relationships, making predictions, evaluating consequences, and taking actions relevant to education, vocational, and social goals.

[2]Reprinted in Sullivan and O'Hare, Accountability in Pupil Personnel Services, California Personnel and Guidance Association, 1971.

2.1 Directional Tendencies: Formulation of decisions and plans, and the development of interests and value attachments which result in increasing stability and consistency in movement toward educational, vocational and social goals.

2.2 Adaptive and Adjustive Behavior: Development of coping behavior to meet educational, vocational, and social requirements and expectations.

3.0 Generalizational Objectives: The development of a behavior pattern typified by consistency, commitment, effectiveness, and autonomy.

3.1 Accommodation: The psycho-social ability to cope with cultural and environmental demands.

3.2 Satisfaction: The internal self interpretations of environmental transactions.

3.3 Mastery: The congruency of expected or predicted achievement with external criteria of achievement.

For each of these categories in each domain Wellman has a general goal statement. These goal statements are excerpted below and numbered according to the categories given above.

Educational Domain Goals

1.1 For the student to become knowledgeable about the educational setting within which he operates.

1.2 For the student to develop an accurate perception of himself in his educational environment.

2.1 For the student to synthesize facts and knowledge pertaining to himself and the educational setting into a rational and useful order.

2.2 For the student to develop adaptive and adjustive behaviors for the achievement of self and socially derived educational goals.

3.1 For the student to develop and to use consistently effective coping behaviors in response to educational demands.

3.2 For the student to interpret his school involvement as meaningful and satisfying to him.

3.3 For the student to follow through and complete his long range educational plans.

3.4 For the student to experience personal growth as a result of continual modification of his ideas, values, and experiences.

Vocational Domain Goals

1.1 For the student to become conscious of the various "life styles" associated with the world of work.

1.2 For the student to develop an accurate perception of himself in relation to the "world of work."

2.1 For the student to synthesize facts and knowledge pertaining to himself and the work world into a rational and useful order.

2.2 For the student to develop an effective organization of work toward the achievement of occupational goals through developing adaptive and adjustive behaviors.

3.1 For the student to commit himself to his chosen vocation.

3.2 For the student to interpret his chosen vocation as meaningful and satisfying to him.

3.3 For the student to follow through and complete his long range vocational plans.

Social Domain Goals

1.1 For the student to become knowledgeable of the social setting within which he operates - including such groups as his family, peers, and significant others.

1.2 For the student to develop an accurate and satisfying perception of himself with regards to the social groups with which he affiliates (family, peers, and significant others).

2.1 For the student to synthesize facts and knowledge pertaining to himself and his social groups into a rational and useful order.

2.2 For the student to develop an effective organization of efforts toward achievement of satisfying and acceptable social relationships through the development of adaptive and adjustive social behaviors.

3.1 For the student to develop and to use consistently effective coping behaviors in response to the demands of the social groups (family, peers, and significant others) with which he affiliates.

3.2 For the student to interpret his involvement in social activities (with normative tolerances) as meaningful and satisfying to him.

3.3 For the student to continue a display of productive social behavior that is within normative tolerances.

3.4 For the student to experience social growth as a result of continual modification of his ideas, values, and social experiences.

As should be evident from this list of goals there is a developmental sequence built into the taxonomy such that if we view a set of goals over the entire span of the school system, K-12, some of these goals would be inappropriate for some levels, some would need modification for certain levels. But they do provide an orderly, rational set of guidance goals from which a locally comprehensive statement of goals could be derived.

PRIORTIZE GOALS

The general approach to the priortization of goals is the same as that discussed earlier for priortization of needs. There are a few additional considerations here, however, that bear mentioning.

Whereas in the case of needs it was the clients that were asked to set the priorities, in the case of goals it is the decision maker(s) who sets the priorities. This is in keeping with our basic assumption that both what the goals are and what goals are important in an organization are determined finally by the most important decision maker(s).

Of course, the process by which priorities get established in any organization can include the inputs of many different people in the hierarchy. Any given decision maker can choose to accept the priorities of those most concerned with a given domain. Certainly the pupil personnel services staff would have much to say as to what should have highest priority. But unless the most important decision maker will accept that priority there will be conflict and difficulty with implementation.

As to the method for priortizing, we recommend the rating scale as the best means for identifying the highest priority goals. Here the descriptions of the four points on the scale would be altered somewhat. Here is a suggested scale:

1 - Highest Importance: Development of operationalized objectives, assessment procedures and criteria, and program plans with full implementation to be carried out for the coming year.

2 - Important: Development of operationalized objectives, assessment procedures and criteria, and program(s) should be planned. Implementation of program and assessment procedures, however, should be contingent on time and resources available after the effort made on #1 goals. General progress in meeting these goals should be informally monitored.

3 - Desirable: Operationalized objectives, assessment criteria and procedures, and program(s) should be developed as time allows. Implementation will be held up pending the availability of resources.

4 - Useful: No further action on these goals to be taken until such time as they are either assigned a higher priority or until sufficient

time and resources become available to enable the development of operationalized objectives, assessment procedures, and programs.

The clear implication of this rating scale is to identify those goals for which resources - time, money, energy - will be immediately committed to see that they are attained. In the context of this systems approach, that means the development of operationalized objectives, assessment procedures, and the programs or tasks through which the goal will be attained.

As many different relevant constituencies as possible should rate each goal on the list and the ratings averaged for purposes of identifying the highest priority goals. If that order of importance is acceptable to the decision maker(s) involved then the subsequent work can proceed on that basis. In the final analysis, only those goals that are most important to the decision maker will be worth committing effort to since implementation depends on the decisions that decision makers in the organization make.

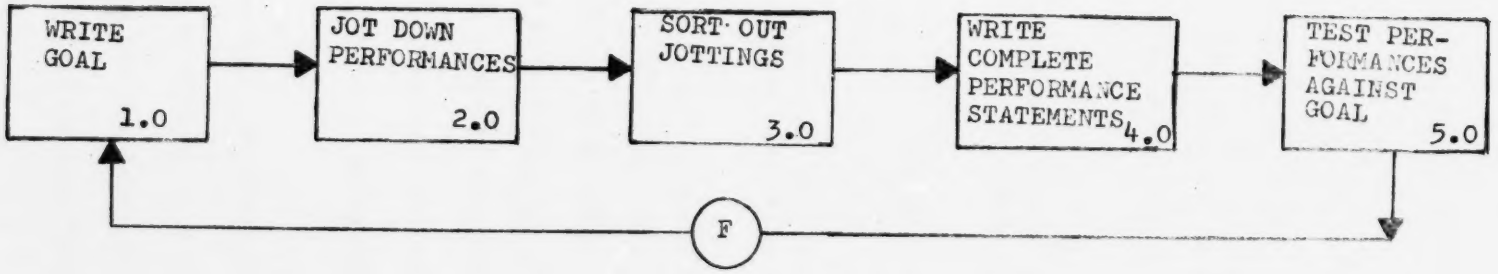
OPERATIONALIZE GOALS

The procedure for operationalizing goals is the same procedure that you would use to operationalize needs. Simply substitute the word needs for the word goals in the system that is described below and you will come out the same way.

Operationalizing goals, sometimes called goal analysis, is the means whereby performance objectives are written. Any systems approach must make the leap from abstract goals to performance objectives or the system cannot be evaluated. This step thus assumes

OPERATIONALIZING GOALS

Figure 4



crucial importance in the whole process.

Figure 4 summarizes the process as described by Robert Mager in his book Goal Analysis (1972). Because of the ready availability of this resource we shall only give a summary of the process. Further details and many illustrations are to be found in the book and anyone undertaking this procedure will find the book an indispensable resource.

From page 72 of Mager's book here is a summary of the process:

Step One: Write down the goal.

Step Two: Jot down, in words and phrases, the performances that, if achieved, would cause you to agree the goal is achieved.

Step Three: Sort out the jottings. Delete duplications and unwanted items. Repeat Steps One and Two for any remaining abstractions (fuzzies) considered important.

Step Four: Write a complete statement for each performance, describing the nature, quality, or amount you will consider acceptable.

Step Five: Test the statements with the question, If someone achieved or demonstrated each of these performances, would I be willing to say he has achieved the goal? When you can answer yes, the analysis is finished.

This process will obviously result in several performance statements for each goal, no one of which by itself would necessarily represent the attainment of the goal, but taken together over time the accomplishment of several of these performances would be a good indicator of goal attainment.

Operationalizing goals or writing performance objectives is a team effort. No one person by himself is likely to be able to produce enough good performance objectives. But small groups working together to pool their wisdom and insights can write many good performance ob-

jectives. This means that a task force approach will work very well here. Each of the high priority goals can be assigned to a small task force for operationalizing. The different task forces can then share their work for further insights from each of the different groups.

Once a set of performance objectives has been developed and identified with a particular goal it would be well to priortize those objectives so that the most important ones can be planned for and their accomplishment assessed. Evaluation is so time consuming in itself that evaluative effort should go into the most important of your objectives. No good performance objective for a high priority goal should be ignored, however, since by definition it represents an observable performance related to the attainment of the goal.

As in the case of goals, there are performance objectives that have already been written. In the field of pupil personnel services, however, they are few and not easy to locate. Wellman's taxonomy remains the major single source of guidance objectives. However, these objectives were developed as a national project, related to a particular model, and would therefore need further modification and analysis at the local level. But they do move one or two steps down the abstraction ladder toward observable behavior and are therefore extremely valuable as a resource. Some examples of these objectives will be given in the second part of this report. The complete taxonomy includes behavioral objectives and a suggested criteria for assessing each objective and can be found in Sullivan and O'Hare (1971).

The procedures described thus far in the system - conducting a needs assessment, stating, priortizing, and operationalizing goals - represent the initial part of the development of an accountability model for pupil personnel services. These steps will enable you to define the ends you seek for the pupil personnel program. The steps that follow now move into the implementation phase and finally to evaluation before recycling again.

PERFORM FUNCTIONAL/TASK ANALYSIS

Operations 1.0 through 4.0 are intended to produce a statement of the ends sought by the pupil personnel program. This next subsystem (5.0) marks the beginning of a consideration of the means for attaining the ends that are sought. The operations to be performed here may, however, be carried on concurrently with the activities of the first four subsystems.

The purpose of the functional/task analysis is to clarify the present nature of the operations currently being performed. Any pupil personnel system obviously has functions and tasks that are already operational. Many, perhaps most, of these tasks will continue to be performed in some form in an accountability system. However, in order to determine how present operations are contributing to desired goals, it is necessary to study those operations in a systematic way. The specifications that follow will help you perform this analysis.

The question asked in this subsystem is, "What does the pupil personnel worker do?" A related question of importance is how much time is spent on each of the functions.

There are two possible ways to come at this analysis with some combination of both probably being most useful. The simplest approach is to ask each pupil personnel worker to list the functions and tasks performed over the course of a year and the proportion of time allocated to each.

We differentiate between a function and a task in this way: A function is a more general description of an activity, such as counseling. A task is a more specific operation, such as providing information on colleges. The distinction is not crucial and the analysis can overlap both concepts.

In the first approach noted above, an effort would be made to have as exhaustive a list as possible and this would really mean getting out the specific tasks that make up the counselor's work. Pupil personnel workers can be asked to write down everything they do. The various lists of others can be combined to eliminate overlapping items and a single list prepared. This list should be returned to the counselors to check on the completeness of the list, with anything left out added. At this point each counselor can also indicate the proportion of time spent on each task.

In the absence of a log kept over a period of time, any estimates of time spent on a task will naturally be subjective. This may be accurate enough for most purposes, but a carefully kept log of daily activities for an entire year or selected weeks or months throughout the year will insure greater accuracy of where the counselor's time is actually spent.

As an alternative a lengthy list of typical tasks could be compiled first and counselors asked to check off all those they actually perform and add any that are not on the list. One good source of counselor functions is the ASCA statement of role and function for secondary and elementary school counselors. Another approach to the prior listing of functions comes from the work of Merville Shaw.[1] Shaw lists 11 major guidance functions (considering individual counseling and group counseling separately). They are: individual counseling, group counseling, consultation, testing and appraisal, curriculum development, provision of information, in-service training, articulation, use of records, referral, and evaluation and research. This list, of course, is more broad and does not necessarily encompass every possible activity that counselors might engage in. Nevertheless, it is comprehensive and simple and can provide a ready "fix" on where the time is being spent in a program.

By asking counselors to assign the proportion of time they spend over the course of a year on each of these 11 functions it is possible to develop an analysis of the major thrust or purpose of an existing program. This is possible with the help of the guidance model Shaw has developed that specifies six possible modes of operation for any guidance program.

These six approaches are combinations of two roles - specialist

[1]Shaw, Merville, School Guidance Systems, Boston, Houghton-Mifflin Co., 1973

and generalist - and three purposes - preventive, early identification and treatment, and diagnosis and treatment. The generalist works more indirectly through significant others in the client's environment. The specialist works directly with the clients. Preventive programs are designed to reach all clients, early identification and treatment programs are designed to reach just those clients with incipient problems, and the diagnosis and treatment programs are just for those few clients with well developed problems requiring longer term treatment.

Depending on which mode is emphasized in a given guidance program, a different ordering of priorities for the 11 functions will be required. This ordering can be seen from the chart on the next page (Figure 5). By comparing the actual ordering of time spent on the 11 functions as reported by a counseling staff with the ordering on the chart, we can identify the major thrust of a program, including the general extent of the population for which the program is intended.

This information can obviously be related to the goals that have been stated earlier. For example, the goals may imply the need for a preventive program but the functions being performed may be oriented more toward early identification and treatment. Or goals may call primarily for generalists but the staff is functioning more like specialists.

GUIDANCE PROGRAM MODELS

FUNCTION	GENERALIST PREVENTIVE	SPECIALIST PREVENTIVE	GENERALIST EARLY IDENT. & TREATMENT	SPECIALIST EARLY IDENT. & TREATMENT	GENERALIST DIAGNOSIS & TREATMENT	SPECIALIST DIAGNOSIS & TREATMENT
PRIMARY MODE OF FUNCTION	Relevant services to adults in the child's school environment	Direct intervention with children primarily through group procedures	Consultation with significant adults re: problems of children in early stages of development	Direct services to children with incipient problems	Placement of children with appropriate problems in a spec. class setting	Direct intervention with children needing long term treatment
PRIMARY FUNCTIONS 60-75% OF TIME	Counseling - primarily group and with adults Curriculum development Use of records In-service training	Group Counseling Providing info. In-service trng. w/teachers Referral of deeper problems	Consultation Testing a) ident. of problems Use of records a) Ident. process	Individual Counseling Some group Counseling Testing Use of Records	Consultation Curriculum Devel.(SPED) Testing	Counseling Consultation Testing Records
SECONDARY FUNCTIONS 25-40% TIME	Consultation Testing a) Evaluation of curri. b) Curriculum Problem detection c) Assessing Learning environment Information Referral Articulation	Consultation Curriculum development Testing a) eval. outcomes b) where help is needed Use of records for eval. Articulation	Providing information to consultees In-service training Articulation w/anxious children only Referral	Consultation a) to provide info. to sig. others Providing info. In-service trng. Articulation w/certain child Referral	In-service Records Referral	In-service Information Referral
LOW PRIORITY FUNCTIONS 0-25% TIME			Counseling Curriculum development	Curriculum development	Counseling Information Articulation	Articulation Curriculum development
	FOR ALL CHILDREN		FOR SOME CHILDREN		FOR FEW CHILDREN	

Figure 5

If both the self reported list of tasks and the functional analysis based on Shaw's model are used in this functional/task analysis the amount of useful information for changing the program to make it more effective will be considerably increased. Some ways in which this information can be used have already been alluded to. The next subsystem will detail some further steps in this analysis.

RELATE FUNCTIONS TO GOALS

Since one major purpose of a systems approach is to bring ends and means into greater harmony, this subsystem is an important diagnostic step in identifying where ends and means are out of harmony and where they are in harmony. The question to be asked here is this: How is what we are presently doing related to what we say we want to accomplish?

This is essentially a logical process, but there is one fairly obvious and systematic way in which the relationships can be identified. Using large graph or construction paper construct a chart with the goals listed across the top and the tasks performed listed down the left side. Arrange the goals in order of priority from left to right and the tasks in order of time allotment from top to bottom. This will produce a cell for each goal and each task.

Since in most cases a given task may contribute to the attainment of more than one goal it is appropriate to make a check mark for each cell in which a given task and given goal can be properly related. However, if the analysis is to be honestly useful, you must avoid stretch-

ing your logic too much. For each task ask what is the major purpose for which that task is carried out. Then see if that purpose is included clearly under one of your goals. If so, check that goal or goals. If not do not check any goal.

This analysis will tell you several things. It will reveal what tasks are being performed for which there is no agreed upon goal. It will reveal any goals for which there are no related tasks being performed. And it will indicate weak links in relation to time commitments such as large amounts of time devoted to tasks that contribute to only one or very few relatively low priority goals and very little time spent on tasks related to relatively high priority goals. Any of this information will help you to determine what kinds of changes will be needed in your program to allow you to be accountable to your goals and objectives.

PERFORM METHODS/MEANS ANALYSIS
SELECT PROGRAM STRATEGIES
TEST NEW STRATEGIES
IMPLEMENT STRATEGIES

The next four subsystems are closely enough related to make it easier to describe the operations of all four together in the same section. These four steps essentially involve putting together a program through which to implement the attainment of the goals and objectives specified earlier. Although this involves a lot of complex activity, space precludes giving more than a general description of the process.

A methods-means analysis is the process of identifying for each

performance objective the possible strategies that might be employed to accomplish the performance. This will obviously entail a combination of looking at current strategies (essentially the previous two operations - 5.0 and 6.0) and designing new strategies or improving current strategies.

The next step is to select from among the possible strategies those that seem worth testing and possibly implementing. This involves weighing the advantages and disadvantages of a given strategy as well as the costs involved. Cost must include not only the expense of materials and equipment but the cost of time and personnel to both develop and implement the strategies. These decisions, in turn, should be related to the priorities assigned to the goals and objectives for which strategies are being designed.

Testing new strategies is important in order to iron out the bugs and make some assessment as to the probable effectiveness of the strategy. In essence this means applying the strategy in a limited way with a small population rather than to fully implement it immediately. Implementation is the next step after the results of testing have been evaluated.

Assessment or evaluation must be built into each of these steps. However, because of the complexity of the evaluation process this will be discussed in more detail in the next section.

Before proceeding to that section we shall present a suggested procedure for organizing the operations necessary for these four subsystems under discussion. This procedure will also provide for the development of assessment procedures.

The procedure is to utilize the "Methods-Means Worksheets" as shown on the next page (Figure 6). Each worksheet will have a performance objective written at the top with a priority assignment. The objective should essentially state the behavioral outcome desired for the specific target population that will be entered in the space provided.

The specific target population can vary for the same objective as you work in various parts of the system. For example, the same objective may be part of the elementary guidance program as well as the secondary. The specific target populations (e.g. all students grades 1-6) will vary, as will the selected strategies, but the outcome will be the same (e.g. awareness of occupations).

In the space for operationalized criteria you will list the kinds of behavioral observations that will be made in judging whether or not the performance has been attained. These criteria will also vary according to the target population.

Means for attaining the objective will be listed under "selected strategies." Since the worksheet is primarily a place for gathering data together, it will not be possible to describe the details of a given strategy. But the worksheets will indicate what needs development and this can be carried out by individuals or task force committees.

In similar fashion, specific assessment procedures (e.g. tests, rating scales, observations, etc.) can be listed on the worksheet and developed later in detail. Obviously, the assessment procedures must be directly related to the operationalized criteria.

METHOD-MEANS WORKSHEET

OBJECTIVE: _____

_____

PRIORITY: _____ SPECIFIC TARGET POPULATION _____

OPERATIONALIZED CRITERIA:

SELECTED STRATEGIES:

ASSESSMENT PROCEDURES:

Figure 6

The worksheets provide a means for organizing a lot of complicated work on the part of many persons. Groups of counselors can work together on sets of objectives, each with a worksheet on which to organize their ideas, and submit them to the group for discussion and editing. Once agreement is reached on the contents of each part of the worksheet a final copy of the worksheet is prepared and distributed to each person involved.

When objectives have been developed and articulated across an entire system (e.g. K-12) the worksheets provide a ready means of communication between levels of the system. Elementary counselors can see how objectives are being met by secondary counselors and vice-versa. Better articulation of methods and means can then be possible.

A set of worksheets covering each major objective can become a kind of operating manual for the pupil personnel staff. Strategies which need further development of materials or procedures can be worked on by various individuals or task forces and that material distributed and explained (perhaps through in-service training). Follow-up meetings on progress and development during the year become more goal oriented with the availability of the worksheets as a frame of reference for looking at all or parts of the program. Worksheets are readily revised and updated. Priorities on objectives may change, old objectives may be eliminated and new ones added, and so on. Each can have its own set of specifications, even if there is overlap with other objectives.

In the second part of this report we will present examples of some

completed worksheets so that each of the operations on the worksheet will become more understandable. Meanwhile, the final step in the model will be further detailed.

EVALUATION

Evaluation appears as the culmination of the systems model, but in fact evaluation must be an ongoing part of the entire accountability process. The operations involved with evaluation, as we shall detail shortly, take place throughout the entire process described above. This section will explain briefly the nature of these activities and how they fit into the various parts of the overall model.

Evaluation is a complex process and in this report we can only deal generally with procedures. The approach to evaluation which we are taking is the same with which we began the needs assessment, namely that the purpose of evaluation is to collect data for decision makers to use in making decisions about programs. Unless evaluation data is fedback to decision makers, it will have relatively little effect on changed operations. In a systems approach it is feedback that enables the system to remain dynamic and changing, but feedback must go to persons involved in the control of the enterprise, the decision makers, for maximum effectiveness. Furthermore, unless the data is relevant to decision makers' needs for information in the first place, the information may not even be used in decision making. The evaluation model takes this into account.

Figure 7 is a flowchart of the evaluation model. Upon inspection

two things should be fairly obvious. First, the model closely resembles the needs assessment model (Figure 3). Second, the model incorporates aspects of the larger systems model (Figure 2) upon which this report is based. Further specifications of this evaluation model will take this overlapping into account.

1.0 Identify Decision Makers; 2.0 Priortize Decision Makers

See the explanation for these two operations under the needs assessment model. The only variation may come from the perspective of the data you will be collecting which will be evaluative data rather than needs data.

3.0 Identify Goals of Enterprise; 4.0 Priortize Goals

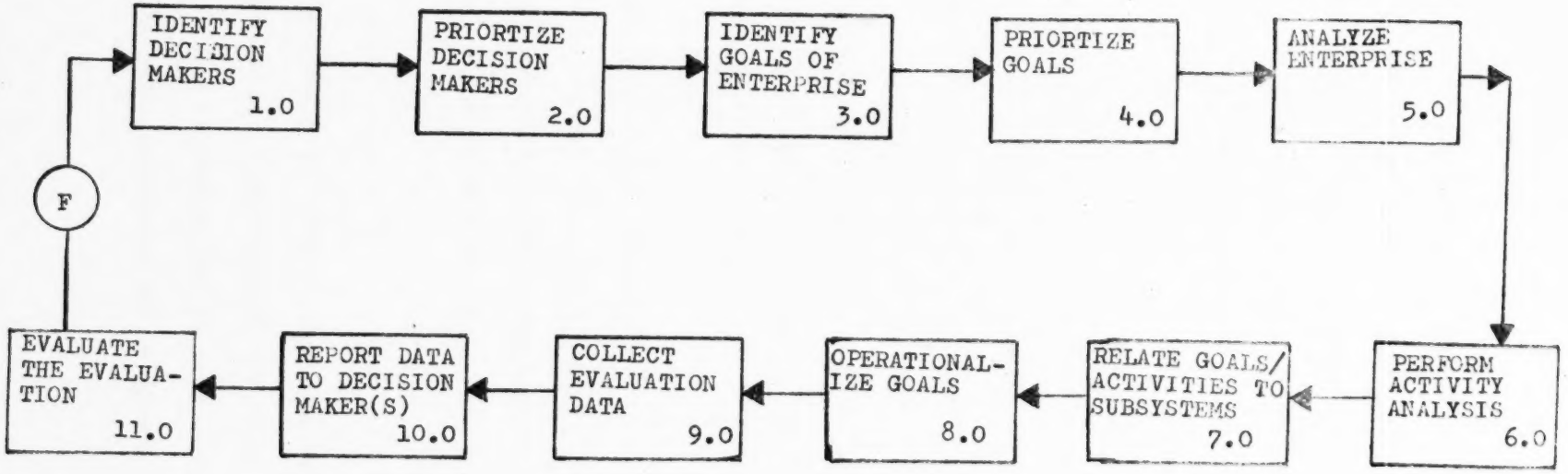
Goal identification is essentially the process described under 2.0 State Goals, in the systems model. You will note in the discussion of this process that the importance of involving decision makers in the identification of goals is stressed. The process of priortizing goals was also discussed at length under 3.0 of the systems model.

5.0 Analyze Enterprise; 6.0 Perform Activity Analysis

Analyzing the enterprise is essentially the same operation as "Define Domain of Concern" described under the needs assessment model. However, the intent of this analysis is to break down the entire enterprise (e.g. school system) into its related parts so that evaluation can be located appropriately and related to relevant subsystems. Also, this is part of the process of establishing as complete a set of goals as possible. Examples of such an analysis will be included in the second part of this report.

DECISION MAKER MODEL OF
EVALUATION

Figure 7



The activity analysis is similar to the operations in the systems model discussed under 5.0 "Perform Functional/Task Analysis." The intent here is to describe all the important activities that go on within each of the major subsystems of the enterprise. Describing the activities (functions/tasks) of the pupil personnel services part of the enterprise was discussed in some detail.

7.0 Relate Goals/Activities to Subsystems

This operation is similar to that of 6.0 "Relate Functions to Goals" in the systems model. The purpose in the evaluation model is to eliminate goals that cannot be related to the operations of a particular part of the enterprise or to a particular set of activities, or to add goals where there are such activities or subsystems without related goals that have already been stated. Should such additional goals be identified, they should be placed in the priority list at an appropriate level.

Although these operations in the evaluation model repeat operations already included in the overall systems model, they are stated here in the larger context of the entire enterprise such as the school system. Clearly the operations are performed on as small or as large a scale as is desired and feasible.

8.0 Operationalize Goals

This has already been discussed under 4.0 of the general systems model. Since in the evaluation model the previous three operations (5.0, 6.0, and 7.0) were intended to be part of the process of establishing as complete a set of goals as possible, the operationalizing of those

goals is placed later than it appears in the systems model. The sequencing of these operations during actual implementation is clearly not a sacrosanct matter.

9.0 Collect Evaluation Data

It is this operation that constitutes the major activity of evaluation and which now introduces processes not previously discussed in this report. The overall evaluation model presented, however, is designed to place this particular operation in the perspective of the total systems process which is, as should be evident, itself an evaluative process.

In order to make the interrelationship of evaluation with the entire accountability process even more clear, we must attend to another evaluation model, the CIPP Model, developed by Daniel Stufflebeam.[1] This model is summarized in the chart on the next page (Figure 8). We shall return to this chart and a further discussion of collecting evaluation data after a brief reference to the remaining steps in this evaluation model.

10.0 Report Data to Decision Maker; 11.0 Evaluate the Evaluation

Again, these two operations are essentially the same as those described under 11.0 and 12.0 of the needs assessment model. Evaluative input must eventually return to decision makers so that the system may

[1]Stufflebeam, Daniel L., Evaluation as Enlightenment for Decision Making. An address sponsored by the Commission on Assessment of Educational Outcomes and The Association for Supervision and Curriculum Development, Sarasota, Florida, January, 1968.

THE CIPP EVALUATION MODEL

Figure 8

	Context Evaluation	Input Evaluation	Process Evaluation	Product Evaluation
OBJECTIVE	To define the operation context, to identify and assess needs in the context, and to identify and delineate problems underlying the needs.	To identify and assess system capabilities, available input strategies, and designs for implementing the strategies.	To identify or predict, in process, defects in the procedural design or its implementation, and to maintain a record of procedural events and activities.	To relate outcome information to objectives and to context, input, and process information.
METHOD	By describing individually and in relevant perspectives the major subsystems of the context; by comparing actual and intended inputs and outputs of the subsystems; and by analyzing possible causes of discrepancies between actualities and intentions.	By describing and analyzing available human and material resources, solution strategies, and procedural designs for relevance, feasibility and economy in the course of action to be taken.	By monitoring the activity's potential procedural barriers and remaining alert to unanticipated ones.	By defining operationally and measuring criteria associated with the objectives, by comparing these measurements with predetermined standards or comparative bases and by interpreting the outcome in terms of recorded input and process information.
RELATION TO DECISION-MAKING IN THE CHANGE PROCESS	For deciding upon the setting to be served, the goals associated with meeting needs and the objectives associated with solving problems, i.e. for planning needed changes.	For selecting sources of support, solution strategies, and procedural designs, i.e. for programing change activities.	For implementing and refining the program design and procedure, i.e. for effecting process control.	For deciding to continue, terminate, modify or refocus a change activity, and for linking the activity to other major phases of the change process, i.e., for evolving change activities.

be "corrected" or changed to keep it goal oriented. The overall systems model shows feedback from 11.0 "Evaluate" to 1.0 "Conduct Needs Assessment" indicating that information is recycled through the entire process for the purpose of keeping the system dynamic and, therefore, accountable.

CIPP EVALUATION MODEL[1]

The importance of this model in relation to the decision-maker model presented above, is that it describes the evaluation process at each major stage of any set of operations: context, input, process, and product. We shall discuss each of these stages briefly in terms of our systems model.

Context Evaluation

By following carefully on the chart (Figure 8) the objective, method, and relation to decision-making in the change process of context evaluation you should be aware that operations 1.0 through 6.0 of the systems model are essentially a context evaluation. From needs assessment through goal stating through task analysis through relating tasks to goals, the context in which operations are to be performed is evaluated. These activities are designed, as we described above, to

[1]For a further discussion of this model as applied to guidance see the following references: Dworkin and Walz, "An Evaluation Model for Guidance," in Cook, David R., Guidance for Education in Revolution, Boston, Allyn and Bacon, 1971; Campbell, Robert E., et al, The Systems Approach: An Emerging Behavioral Model for Career Guidance, Center for Vocational and Technical Education, The Ohio State University, April, 1971.

both uncover problems that need attention and to enable the establishment of a system that can be more accountable to the solution of system problems (which of course includes meeting client needs). These operations alone will produce a good deal of useful information for decision makers to bring to bear on decisions affecting various programs. It is important, therefore, that as the operations in the systems model are carried forth, the information generated from those operations is reported back to the important decision makers in a form that will be useful for decision making.

Input Evaluation

Operations 7.0 and 8.0 of the systems model essentially constitute input evaluation. The process of developing methods and means for the accomplishment of objectives and of selecting from among strategies requires attention to input. The available human and material resources, the feasibility of strategies, relative cost factors, and so on all must be considered in developing strategies for goal attainment. The process of doing these things constitutes an input evaluation from which information must be fedback to decision makers for the crucial decisions on the selection of solution strategies. Decision making in selection of strategies cannot be very effective without such information.

Process Evaluation

Operations 9.0 and 10.0 of the systems model, testing and implementing strategies, require process evaluation. The testing of stra-

tegies before implementation is clearly a major aspect of process evaluation. In other words, while a strategy is actually in process, being tried out, we observe how it is working so that we can identify "bugs" and make corrections before it is too late to do any good for those involved in the process. The teacher who modifies a lesson plan during the course of the class period because something isn't going right has done a process evaluation. Changes after the process has been completed can only benefit those clients who enter the revised process later, but does not help those who are going through the process before it is altered.

Product Evaluation

This is the aspect of evaluation most often thought of when "evaluation" in general is discussed. How did things turn out after the treatment was complete? This is certainly a highly important matter to assess and such an assessment depends on the establishment of performance oriented objectives. While the previous three types of evaluation can be carried out reasonably well without previously established performance objectives, product evaluation must have behavioral objectives or there is nothing to evaluate.

Behavioral or performance objectives essentially state the nature and level of attainment in performance terms to be reached at the conclusion of an intervention or set of interventions. Product evaluation measures the extent to which that attainment was reached for the clients involved. To the extent that interventions enabled the attainment of objectives these interventions will be maintained. To the extent that

objectives were not attained the interventions need to be changed or replaced.

It goes without saying that making product evaluations is a complex and difficult process at best. However, the major effort in a product evaluation comes at the point where goals are operationalized into performance objectives. When, as we explained under the procedures for performing a methods/means analysis, criteria are spelled out for each objective and assessment procedures are worked out for measuring the attainment of the criteria, then a product evaluation can proceed in an orderly and systematic fashion.

Project SAGE, by virtue of being a planning grant, did not reach the stage where product evaluation was feasible. However, the second part of this report will detail operations that essentially constituted some evaluative activity in the other three evaluative processes.

While it was beyond the scope of this project to further detail actual product evaluation strategies and their implementation, readers are referred to the still ongoing project of the Center for Vocational and Technical Education at Ohio State University, Columbus, footnoted above. The systems model they have developed is currently being field tested in several school systems and results will be available in the near future. Those results will undoubtedly include some product evaluation data.

We turn now to the second part of this report and some details on the application of various parts of this model in the Bedford, Massachusetts school system.

PART TWO

IMPLEMENTING THE SYSTEM

As we explained in the introduction, the second part of this report will describe the operations that were actually carried out in the Bedford School System in the process of developing the overall approach to planning. The value of the operating plan and specifications presented in the first part of this report becomes clear in retrospect.

While we had a systems model to follow (Figure 1, page 3), the model was essentially developed as an abstract design and we had to build procedures from scratch for carrying out the steps in the model. At certain points we were not clear how to implement a step. Nevertheless, having the model was of great value because it was a point of departure and did enable us to synthesize our own planning model. While we feel that the model we have described in the first part is practical and readily applicable for any school system, we also recognize that local adaptions and short cuts will inevitably need to be made by anyone trying to implement the model. Our own experience to be reported in this section should be helpful to any potential user of the systems approach.

Getting Started

"Study Real-Life Environment" was the first operation of the model we began with and this was implemented through a committee chaired by one of the principals and including some citizens of the town. They produced a brief and interesting report on the social, economic, cultural and political factors associated with the Bedford Community. The report itself has only

local interest so will not be reproduced here.

The practical value of this report to the development of pupil personnel services (henceforth referred to as they are in Bedford, "Student Development Services") is still not clear. While it is axiomatic in any school system that goals, programs, and strategies should be related to special community needs, how this match-up takes place consciously is not clear from our own planning activity. Most local planners will already begin with this "sense of the community" and may not need to formalize their insights.

Simultaneously with the establishment of this committee to study the community, a small committee headed by the Superintendent of Schools was established to draft a set of comprehensive goals for the entire school system. A committee under the Assistant Superintendent was established to determine what, if any, existing goals there were in writing for the curricular areas of the school system. The SAGE project staff set to work with the Student Development staff (which includes special education personnel) to draft a set of goals for the Student Development Program. The counseling staff and the special education staff first worked independently on this and then combined their work to produce one set of student development goals.

An advisory committee to the Project was established and met to review these plans as they were developed and to provide ideas for the development of our plans. The committee was broadly based, including people from the community as well as within the school system. Even

without full attendance at every meeting this committee proved to be quite valuable in reacting to plans and providing ideas of their own. We recommend the establishment of such a committee for any school system undertaking extensive planning activities.

The earliest major operation undertaken by the Project staff was a needs assessment. This was part of the "study real-life environment" sub-system in our basic planning model. From this point in our report we will revert to the operations in our own systems model and explain what was done or not done for each of these operations. This will provide a ready means of comparison for the reader between the description of the operation in the first part of the report and the experiential results described in this part of our report.

CONDUCT NEEDS ASSESSMENT

Since the Assistant Superintendent for Student Development was a Co-Director of the Project, and the Superintendent was involved on the Advisory Committee and the task force on goals, the major decision makers for the student development program were involved in the project from the beginning. Other decision makers in the system, especially principals, were also involved in one way or another. We did not, therefore, make any special listing, priortizing, or approaches to the decision makers. We simply moved ahead to conduct our needs assessment in what seemed to be the most logical way.

We determined that our clients were the students in the system,

but we decided to ask all relevant groups to describe what they felt were the needs of students. We felt that differences in the perceptions of student needs that might arise from this process would be as useful to us as the similarities.

Our methodology was simple. We asked small groups of students (grades 7-12), teachers, administrators, parents and counselors to "brainstorm" what they felt were the needs of students at various levels in the system. We took down all their statements in the form of notes. These unedited statements were combined into single lists for each particular population as follows: high school students, junior high school students, elementary teachers, secondary teachers, and parents. Administrators made their inputs with the teachers and the student development staff moved from their own brainstorming of needs directly to goal stating.

Simple counting statistics reveal the extent of this process. We met with five different groups of parents, seven different groups of teachers, and 13 different groups of students. A total of 65 parents, 38 teachers, and 92 students participated in the brainstorming. The parents produced 104 needs statements, elementary teachers 101, secondary teachers 56, junior high school students 50, senior high school students 33, and the total number of needs statements was 344. Naturally, there was a good deal of overlapping among these many items.

Rather than having these raw data priortized by our clients, we decided to perform a logical analysis of our own with the various lists. Through a process of inspection, conducted by the three man project staff,

we "forced" each of the lists into five clusters (seven in the case of the elementary teachers). This was done by numbering each brainstormed item with a 1, 2, 3, 4, or 5 according to how it overlapped.

In other words, the first item was numbered a one. The second item was then inspected. If it seemed to overlap with the first item it was also numbered one. If it was different it was numbered two. The third item was inspected to see if it overlapped with either of the first two items or was different. If different it was numbered three, and so on. But the number of allowable categories, as we said, was limited to five in most cases.

Once each item had been assigned a number the like numbered items were placed together and the cluster of needs was then labeled or described. This produced, initially, five sets of needs clusters and these were finally collapsed into a single set of seven needs clusters. This final combined list was established as a description of the needs of students in the Bedford School System.

As is obvious, the gain in simplicity from an original list of 344 items to a list of 7 items was made at the sacrifice of a lot of more detailed information. Had we used the original items and asked the various groups to identify, say, the 10 most important, we could have accomplished the same purpose of reducing the lists without ourselves making the judgment as to what information to throw away or obscure in a general cluster. But we felt that our approach did not do great violence to the original information.

In the charts below you will find the results of the work just described. We have provided only samples of about 10 each, taken at random, from the original list of brainstormed items. All the descriptive summaries of the various cluster categories which we developed are included in these charts. Following the charts we will present a brief discussion of the results of this survey of needs.

SAMPLE BRAINSTORMING ITEMS

High School Students

Need to learn responsibility
Need to be able to make more decisions, by having more choice of courses
Need to learn at your own speed; grade should not be a factor
Need to be understood as individual by peers and teachers
Need to have exposure to a variety of teaching methods
Need to be tolerant of others
Need for more communication and discussion in the classroom
Need for free time to socialize to release tension
Need to be treated as an individual
Need to feel a sense of belonging to the institution - a participation

Junior High Students

Good teachers that understand you
Need to have special problems looked at
Policies and rules should be made clearer so everyone can follow them
Need clearer explanation of what teachers want
More time to talk to friends - more time for lunch
Students should have something to say about what you have to do
If you answer too many wrong answers then you feel like a jerk
Need to get along with other people
Need to discuss your own experiences
Need for more fun in education

Elementary Teachers

Respect for the feelings of others
Respect for other's property
Need to learn self-control of one's behavior
Need to listen and to develop listening skills
Need for greater self-awareness
Need for value identification
Need for recognition
Need to recognize each child's unique personality
Ability to meet success and failure on an academic and social basis
Need to accept themselves

Secondary Teachers

Ability to listen
To learn to take initiative and make decisions
To learn how to remember
To learn not to be ethno-centric
To learn how to use leisure time
Independence, that is, work on projects
Ability to differ with teacher and support own position
Need skills for finding information
Opportunities to make decisions
To know when they need help

SAMPLE BRAINSTORMING ITEMS CONT.

Parents

To enjoy the world around him
How to relate to people with other talents
To learn to give their own opinions and make decisions
To learn practical knowledge so that they can earn a living
To develop and recognize social problems
Teach him tolerance to others
To develop a happy self-accepting person
Arouse and stimulate thinking in various areas other than specific skills
Need to learn self-management
Need to be able to discover and develop their interests

DESCRIPTIVE SUMMARIES OF THE CLUSTER CATEGORIES

High School Students

1. Need to understand other people with different points of view.
2. Need for greater share in school decision making, including a wider range of choices, the opportunity to learn to make decisions and accept responsibility.
3. Need to be treated as a unique individual with unique interests.
4. Need for a wide range of educational options and experiences through which to learn.
5. Need to interrelate with other persons on a basis of mutual understanding.

Junior High School Students

1. Need to learn good interpersonal relationships through working together with peers and with others.
2. Need for a greater degree of choice and responsibility for one's own decisions and to participate in school planning.
3. Need to be understood and accepted by teachers.
4. Need for reasonable structures that can be understood by students.
5. Need to be regarded as an individual with special needs that can be attended to when necessary.

Elementary Teachers

1. Need to develop respect for other persons and the ability to relate with concern and understanding toward others.
2. Need to learn how to make decisions, to take responsibility for one's self and to become a more independent learner.
3. Need to feel accepted, to develop a positive self-concept, and to have opportunities to succeed.
4. Need to be recognized as an individual with unique talents, interests, and weaknesses.
5. Need to develop skills of learning and thinking.
6. Need to experience a stimulating and enriching educational environment.
7. Need to learn self-control, self-discipline, and the ability to function within the limitations of self and situation.

Secondary Teachers

1. Need to broaden horizons to an understanding and acceptance of people and ideas that are socially and culturally different.
2. Need for good interpersonal relationships, a sense of group belonging.

Secondary Teachers Cont.

3. Need to develop basic skills of learning, thinking, and communicating.
4. Need for recognition of one's individual abilities and interests and the provision of opportunities for individual success and self-expression.
5. Need to learn to make decisions and accept responsibility for one's own decisions.

Parents

1. Need to relate in tolerance, understanding, and concern with both peers and adults, locally and in the world at large.
2. Need to learn and experience independent self-management, decision making skills, and a high level of self-understanding.
3. Need for individual recognition of students' strengths and weaknesses, and to have those strengths and weaknesses considered in the educational program and instructional planning.
4. Need for an educational experience that stresses variety, many options from which to choose, the development of responsibility and the capacity to become a productive member of the community upon completion of school.
5. Need for disciplined study, skill development, and a relevant means of evaluation.

COMBINED NEEDS CLUSTERS

1. Needs related to decision making skills, responsibility, and independent learning.
2. Needs related to interpersonal relationships, understanding and concern for others, and a broadened outlook toward persons beyond the confines of the community and the nation.
3. Needs related to the desire for individualized treatment and recognition as a unique person different in some way from everyone else.
4. Needs related to the desire for a more enriched learning experience through the provision of many options and with an emphasis on the relevance of school learning to life outside the school.
5. Needs related to skill development, particularly learning, thinking, communicating, and studying.
6. Needs related to self-control, structures, and the ability to cope within the limitations of self and situation.
7. Needs related to feelings of acceptance and understanding, the development of a positive self-concept, and experiencing opportunities for success.

Discussion

The process followed in arriving at these needs does not permit any clear objective statements relative to where the groups differ with each other in the needs of students which they identified. What follows are a few more impressionistic observations.

Clearly, many needs were mentioned by all five groups that fall into the first three combined needs clusters listed above. These three areas, then, represent considerable agreement among students, teachers, and parents. Students, however, did not have much to say about needs for skill development but parents and teachers mentioned this frequently. Junior high school students and elementary teachers most frequently mentioned the needs associated with combined clusters six and seven. Parents, elementary teachers, and senior high school students most often mentioned the needs associated with combined cluster number four.

A very impressionistic summary of the major focus of concern in the realm of needs on the part of all five groups would almost surely lead to the area of decision making, responsibility, and self-direction. Parents and teachers felt it was important and students were asking for more opportunities to learn by experience. Most of the other need categories can be seen to overlap with this need to some extent.

The combined clusters of needs was finally what we worked with in establishing priorities and relating to goals. However, nothing more was directly done with this needs information other than to report it back t. people in the school system. The development of goals, to be discussed next, proceeded concurrently with the collection of needs data and the needs were used as a check against the goals to be sure that all the stated needs could be subsumed under one or more of the goal statements. In other words, the needs clusters were not directly used as a basis for developing goal statements as they could easily have been. The time lag in co_lecting the data was such that we did not want to delay the process of writing goals.

The method of priortizing these needs and the results of that operation will be discussed later under priortizing of goals.

STATING GOALS

The Superintendent and his committee produced a document on the philosophy and goals of the school system that should have considerable long range value to the Bedford system as these goals are discussed and their implications studied. This list of goals provided a system wide basis for the consideration of goals for the Student Development Program that were being written by the Student Development staff. The process whereby these system wide goals were written also ensured that they were acceptable to the most important decision maker in the system.

Because we feel this brief document would be of value to other systems attempting to write comprehensive goals for a school system, we reproduce

it on the following pages. The goals are accompanied by a series of statements pointing toward the ways in which the system should consider implementing these goals.

PHILOSOPHY AND GOALS OF THE BEDFORD PUBLIC SCHOOL SYSTEM

Philosophy of the System

Education should enable the individual to function effectively in his environment. Materials, courses of study, methods, and goals of instruction should be developed, maintained, and operated out of the clearest possible perception of the student's long term needs in a world of accelerating and unpredictable change. Foresight, creativity, and adaptability should be fundamental to the operation of the school system. The school system will utilize all the resources that can be found and mobilized to carry out its aims.

Goals of the System

In accordance with our basic philosophy, the goals of the Bedford School System are as follows:

1. To enable all students to grow emotionally, intellectually, physically, and socially.

2. To enable each student to develop his or her individuality, a sense of self-respect, a social conscience and a comprehensive world view.

3. To enable all students to become self-initiating learners and responsible self-directing persons.

4. To promote the development of creative thought and expression as well as the practice of critical and scientific methods of inquiry and evaluation.

5. To enable all students to learn the basic arts and skills of communication and learning.

6. To enable all students to learn through experience the meaning of the democratic process.

7. To enable all students to develop personal self-sufficiency as a minimum career education goal and become self-supporting as an ultimate goal.

8. To enable all students to develop an awareness of aesthetic values and a sensibility to artistic qualities that enrich life.

Implementing the Goals

It shall be the aim of the school system to implement these goals in the various schools of the district through:

1. Providing and maintaining a learning environment conducive to the total growth of all students as specified in the various goals.

2. Providing instructional programs and social situations that will enable the learning goals to be attained.

3. Providing for the broad and active participation of the entire school community in the educational process.

4. Providing student development services to support and assist students and staff in the attainment of these goals.

5. Providing appropriate health education and services for individuals and families for the attainment of the goals of physical and mental health.

6. Providing for the identification of and assistance to students having special needs.

7. Providing specifically for the unique talents and capabilities of students throughout the school system.

8. Evaluating the attainment of these goals through accountability procedures that will enable the community to determine how well the school system is meeting its commitment to these goals.

There is one difficulty in working with the eight system wide goal statements that may be instructive to discuss at this point. Nearly each statement includes more than one goal or intention which would get lost in any effort at priortizing and then focusing on the development of objectives. In order to get clarity on the specific intentions represented by these eight statements it is necessary to break them down into a set

of unitary statements. When this set of goal statements was broken down, 18 separate unitary goal statements were produced. They were the following:

1. To enable all students to grow emotionally.
2. To enable all students to grow intellectually.
3. To enable all students to grow physically.
4. To enable all students to grow socially.
5. To enable each student to develop his or her individuality.
6. To enable each student to develop a sense of self-respect.
7. To enable each student to develop a social conscience.
8. To enable each student to develop a comprehensive world view.
9. To enable all students to become self-initiating learners.
10. To enable all students to become responsible, self-directing persons.
11. To promote the development in students of creative thought and expression.
12. To promote the development in students of the practice of critical and scientific methods of inquiry and evaluation.
13. To enable all students to learn the basic arts and skills of communication and learning.
14. To enable all students to learn through experience the meaning of the democratic process.
15. To enable all students to develop personal self-sufficiency through a career.
16. To enable all students to become self-supporting adults.
17. To enable all students to develop an awareness of aesthetic values.
18. To enable all students to develop a sensitivity to artistic qualities that enrich life.

While this process produces a much longer list than was contained in the original document, it clearly is a more realistic list to deal with and avoids the problem of covering up the complexity of a long set of goals collapsed into a small set of complex sentences. Any list of goals should contain only unitary statements so that each intention is set forth clearly and does not need to compete with related intentions in the same statement.

The Student Development staff, meeting separately and then jointly compiled a set of goal statements that went through about three revisions and much discussion over a period of several weeks. The final list of goals that emerged contained 11 statements as follows:

1. Experience success as a learner.
2. Develop and sustain feelings of self worth.
3. Maximize his or her capacity for self-direction.
4. Grow and develop emotionally through the recognition and acknowledgement of real feelings and by learning to take responsibility for the expression of them.
5. Maintain healthy interpersonal relationships.
6. Develop concern for the well being of others as well as the self.
7. Expand his or her knowledge of career opportunities.
8. Acquire effective coping skills.
9. Learn decision-making skills.
10. Expand his or her social horizons.
11. Develop a comprehensive world view.

This completed the process of stating goals. The next step was to establish priorities.

PRIORTIZE GOALS

The system wide goals were not priortized. Instead the Project staff decided to concentrate on the seven needs clusters and the 11 Student Development Goals since they were the focus of our planning.

A copy of the seven needs clusters and the 11 goals was sent to every member of the school system professional staff with instructions on ranking them in order of importance from 1-7 and 1-11. The same thing was done with students from grades 7-12, except that the needs statements and the goal statements were edited and rewritten with the help of student consultants so that the language would communicate better to students. Senior high school students from psychology and sociology classes assisted in the collection of this data and in the tabulation of it for analysis. Usable returns were collected from 1234 students, 12 student development staff, 6 administrators, 52 elementary teachers, 21 junior high school teachers, and 26 senior high school teachers. The returns from teachers were well below 50% and this was a considerable disappointment. We cannot tell how representative the results are from teachers.

A similar survey of the community to establish the priorities of parents was planned but circumstances and time prevented our carrying this out. We strongly recommend involving members of the community in the process of setting priorities, however.

The following two charts present the results of these surveys. The figures on the charts are the average rank order for each need or goal. The lowest figure represents the highest priority rank order. Our original analysis provided for separate breakdowns of average rank orders for the students by grade level and by sex. The significance of this breakdown was not very great so we are not presenting that data in this report. Some comments that follow, however, will allude to some observations that were possible from this breakdown.

Figure 9

AVERAGE RANK ORDER FOR STUDENT NEEDS CLUSTERS

NEED STATEMENTS	Students Gr. 7-12 n=1234	Stud. Dev. n=12	Admin. n=6	Elem. Tchrs n=52	Jr. High T. n=21	Sr. High T. n=26
Needs related to decision making skills, responsibility and independent learning.	3.2	3.7	3.8	4.0	3.1	3.7
Needs related to interpersonal relationships. Understanding and concern for others, and a broadened outlook toward persons beyond confines of the community and nation.	3.2	4.4	4.8	4.3	4.3	3.4
Needs related to desire for individualized treatment and recognition as a unique person different in some way from everyone else.	3.7	4.1	5.2	4.2	5.0	5.5
Needs related to desire for a more enriched learning experience through the provision of many options and with an emphasis on relevance of school learning to life outside the school.	3.9	5.7	4.8	5.1	5.0	4.8
Needs related to skill development, particularly learning, thinking, communicating and studying.	4.7	4.5	3.0	4.1	3.0	3.0
Needs related to self-control, structures and the ability to cope within the limitations of self and situation.	4.9	3.8	3.8	4.0	3.4	3.4
Needs related to feelings of acceptance and understanding, the development of a positive self-concept, and experiencing opportunities for success.	4.9	1.8	2.5	2.2	4.3	3.7

Figure 10

AVERAGE RANK ORDER FOR STUDENT DEVELOPMENT GOALS

GOAL STATEMENTS	Students Grades 7-12 n=1243	Stud. Devel. Staff n=12	Admin. n=6	Elem. Tchrs. n=52	Jr. H. Tchrs. n=21	Sr. H. Tchrs. n=26
Experience success as a learner.	6.1	2.9	3.5	3.3	4.4	4.7
Develop and sustain feelings of self-worth.	4.9	2.2	3.0	1.8	4.1	3.5
Maximize his or her capacity for self-direction.	5.0	4.8	4.2	4.6	4.5	3.3
Grow and develop emotionally through the recognition and acknowledgement of real feelings and by learning to take responsibility for the expression of them.	5.9	4.8	4.0	4.2	5.1	4.4
Maintain healthy interpersonal relationships.	5.6	4.1	5.7	5.9	6.3	5.1
Develop concern for the well-being of others as well as the self.	6.1	5.7	6.0	4.8	5.7	5.3
Expand his or her knowledge of career opportunities.	6.4	8.9	8.3	10.0	6.6	9.2
Acquire effective coping skills.	6.3	6.3	6.5	6.5	5.5	6.6
Learn decision making skill.	6.3	6.3	5.5	6.1	4.1	5.7
Expand his or her social horizon.	7.1	9.3	9.7	9.0	9.6	9.5
Develop a comprehension world view.	6.5	10.0	9.7	9.5	9.3	8.9

Before commenting on the data itself, we should make some comments about the process. A good deal of time and effort was invested in the production, distribution, collection, and analysis of the priority rankings of these needs and goals. While the data are interesting, we are not at all sure that the investment of time was worth the information returned.

For one thing, there is a strong suggestion from the way the final rankings of students on their needs came out that a response set had been established in which there was a strong tendency to rank the list pretty much in the order of presentation. Such serial rankings from top to bottom on the list as presented were easy to spot and we eliminated the obvious ones, but the effect of this response set still seems to be present. This is somewhat strengthened by the sharp difference between the way students ranked their needs and the way the Student Development staff and other school personnel ranked them, reversing the highest and lowest priorities of the students. Still, if this is an accurate reflection of the way things are then that raises many interesting questions also.

We proposed in part one of this report a ranking system that used absolute categories which would allow for a discrete ranking of each item on a list according to how important the respondent felt the item was but without regard for its relation to other items. Rank ordering does not indicate how important to a group a given item is by itself. When you look at the average rank order figures for the goal statements as given by

students you note that the lowest figure is 4.9. There is about a two point spread to the highest average rank order of 7.1. This allows for a very limited understanding of the actual importance of any of these goals to the students and raises the question of whether any of them were very important from the student's point of view.

Clearly, there are some questions of procedure and time investment that enter into decisions about how to priortize goals and needs and whom to involve in the process. The procedure is of considerable importance, but it can probably be carried out with the involvement of fewer persons.

Our recommendations are that students only be involved in priortizing needs or goals which they have participated in writing or compiling; that the absolute rating system be tried (possibly in combination with rank order); and that the actual raters be selected according to their involvement in decision making. Of course, if there is ample time and resources a more widespread sampling can provide interesting data.

Listed below, first for the needs and then for the goals, are a few of the generalizations we made from an inspection of our data.

<u>With Regard to the Needs Clusters</u>:

1. Decision making skills, independent learning and interpersonal relationship needs were most important to the students.
2. Decision making needs become more important as the student moves through the grade levels to the 12th grade. It seems least important in the 9th grade.

3. Interpersonal relationship needs were consistently more important to girls than to boys.

4. Individualized treatment is the third most important need overall for the students and was consistently more important to girls than to boys.

5 Feelings of acceptance was the most important need from the point of view of student development staff elementary teachers and administrators. But this need was ranked least important on the list by students.

6. Skill development needs was ranked most important by both junior and senior high school teachers.

With Regard to the Student Development Goals:

1. All groups except the senior high school teachers placed self-worth as the most important goal Senior high teachers ranked it second.

2. Senior high teachers ranked the self direction goal first. Students ranked this goal about even with the self-worth goal mentioned above.

3. Experience success as a learner was 5th most important for the students, but was number 2 for student development staff, administrators, and elementary teachers.

SUBSYSTEMS 4.0 THROUGH 11.0

At this point in our systems model the "real world" of the Bedford School System and the SAGE Project breaks into the abstract sequencing of the model and makes it difficult to report our project activity meaningfully by following each of the remaining subsystems in order. In a real sense this should be a comfort to any staff that wants to undertake a systems approach because a model is never any more than a map which is always different from the territory. Maps help us maintain

our sense of direction and keep us from getting lost but they don't account for unintended detours, bumps, and other real life contingencies.

The next step in the sequence is Operationalize Goals (4.0), but we did not carry out this operation in a neatly packaged activity. We combined this work with some other activity and we borrowed already operationalized goals as a point of departure for much of this work. Thus, we can better report this work in conjunction with the other operations with which it was combined.

So as to give the clearest picture of the totality of our project activity from the point where we left off reporting on the priortizing of goals, we will give a brief summary overview of the rest of our work and then fill in the details of these operations. This overview will continue to make use of the systems model operations.

As noted above, we did not do much direct operationalizing of the 11 Student Development Goals that were worked out by the first half of the year. Instead we went to Wellman's taxonomy and used that work as a point of departure for developing operationalized objectives. Wellman's taxonomy clearly contains many goals and objectives that were directly related to the 11 goals we developed in Bedford and it is always easier to build on work previously done than to start from scratch. We shall detail our use of this material below.

At the same time that the work on objectives was undertaken, the use of the Methods-Means Worksheets described on page 38 was implemented.

This essentially took us into the operations of Perform Methods/Means Analysis (7.0) and Select Program Strategies (8.0). These worksheets were also designed to begin setting up assessment procedures that could be used for the Evaluation operation (11.0). Essentially, however, this activity was primarily for the purpose of collecting context and input evaluative data which would later lead to changes in program strategies.

We shall describe below the kind of information generated by this combined operation, as well as one major program strategy that was selected and is in process of being tested during the 1972-73 school year. It is, as yet, too early to say that any strategies developed as a result of this planning have been fully implemented and there has been no opportunity for anything approaching a product evaluation. But the groundwork has been laid for such an evaluation although much more in the way of operationalizing certain goals must still be done.

Backtracking now to operation 5.0, Perform Functional/Task Analysis, this was carried out in a broad, formal way with the help of the Shaw model described on page 32. The results of this analysis will be presented in detail below. An informal analysis based on interview data with a few of the counselors was also conducted as a way of testing out this approach and developing some data that could be used to flowchart some of the system operations.

The Needs Assessment model has an operation described on page 10 called "Define Domain of Concern." As a way of defining this domain for

ourselves we constructed some flowcharts that will be presented in conjunction with our description of the operations related to the functional/task analysis.

Finally, the remaining unaccounted for operation in this summary discussion is Relate Functions to Goals (6.0). Although we worked out a method for doing this which we described on page 35, we did not actually test out the method with our goals and the data from the functional analysis. The reason for this was largely a matter of lack of time.

To summarize this description of our "real life drama" entitled "Actually Using a Systems Approach," we consumed a little over half the school year on the needs assessment, goal stating, and gathering the data on priorities. It required approximately another six weeks to sort out and organize the procedures for carrying out the remaining steps that seemed necessary and possible to test our model. That left about four to six weeks to have the Student Development Staff carry out these operations before the project terminated. Needless to say, this left a lot of loose ends that will only get tied up over a period of months and perhaps years. Any staff that seeks to undertake a systems approach should develop some time lines of their own for the accomplishment of certain operations and enter into this planning as a long range, ongoing commitment.

The remainder of this report will be divided into three major parts. First we will describe the activity and results that were undertaken in

performing the functional/task analysis. Then we will describe the results of the combined goal operationalizing and the methods/means analysis using the worksheets. Finally, we will describe the plans for the Learning Resource Center in Bedford that is being tested out during the 1972-73 school year. Some summary comments, a selected bibliography, and an appendix, will conclude the report.

FUNCTIONAL/TASK ANALYSIS

As we pointed out on page 30, the purpose of this operation is to identify in a systematic way the current functions and tasks being carried out by the pupil services staff and the proportion of time allocated to those functions. We began by administering the "Guidance Mode-Function Survey" to all members of the counseling staff. This survey was developed from the work of Merville Shaw cited on page 32 and is reproduced in the appendix.

The survey provides essentially two kinds of overlapping data. First it gives the general mode of the current program in terms of the six basic modes described by Shaw and discussed in the first part of this report. Second, it provides the relative priority of each of 11 major guidance/counseling functions based on the proportion of the counselor's time devoted to each function during the course of the year. The relative priority of these functions can be compared to the recommended priority for each of the six modes. A third category of information is provided by having counselors rank functions according to what they see as desirable.

This enables us to compare the actual priorities as set through time actually spent on various functions with what the counselors would desire if they had more control over the allocation of their time.

Analysis can reveal several things. It can indicate how the allocation of time to various functions "fits" with the preferred program mode of the staff. It can reveal differences and similarities in preferred mode and allocation of time to functions between different levels of the staff, i.e. elementary and secondary, and between different individual staff members.

The raw data from the analysis we conducted included the individual responses of each of the counselors and the average of those responses for the elementary counselors and for the high school counselors. Since there were only two junior high school counselors, and since there were some sharp differences in their responses, averaging them was rather meaningless. When the number of staff is quite small, say five or less, it probably does not make much sense to average the ranks. What follows is a series of summary statements derived from an analysis of the surveys returned by the Bedford staff.

1. Secondary counselors see themselves more as specialists and they function accordingly.

2. Junior high school counselors are essentially divided in their approach. One favors a preventive approach, more generalist, the

other a more remedial approach as a specialist.

3. Elementary counselors see themselves more as generalists but they function currently more as specialists.

4. The overwhelming thrust which the majority of counselors feel the program should focus on is early identificationand treatment. There is a leaning toward the preventive end of the continuum and away from the remedial end. No one feels diagnosis and treatment is an appropriate focus for the Bedford program. There is a definite disposition on the staff to move toward a more preventive primary mode of functioning.

5. There are some inconsistencies between the preferred mode of functioning and the actual functions which the counselors prefer to focus on.

5.1. The high school counselors' focus on individual and group counseling is consistent with their preferred mode but their relegation of testing and use of records to a low priority is inconsistent with the need to identify those incipient problems requiring treatment. Their secondary stress on in-service training, consultation and curriculum development is not appropriate for a specialist oriented program. An obvious current practical problem for the high school counselors is the enormous amount of time they spend providing information to students.

5.2. The elementary counselors prefer a generalist approach but opt

for a more specialist set of functions. More consultation and in-service training is required if the elementary counselors are to actually function as generalists in an early identification and treatment program. Their current stress on group counseling is more of a specialist preventive program function than the one they prefer, but the choice they make is not clear cut. Four out of the five elementary counselors chose a preventive mode as either a first or second choice.

The raw data and the analysis summarized above was presented to the counselors and a full discussion was held as to the implications. Some confusion over the meaning of the survey items and possible misinterpretations or differing interpretations of certain functions was aired. The pin-point accuracy of the analysis is not so important as the feeding back of what is essentially contextual evaluation data for consideration and discussion. The analysis was quite interesting to the counselors and gave them a better framework for considering their role and function within the program and the implications for changes that they might want to make.

The above analysis, of course, deals with broad functions. There is also some value in getting a clearer idea of the more specific tasks that consume a counselor's time. The most thorough way to collect this kind of information would be through a daily counselor log in which each counselor would record each separate activity he performed during each working day and the time it took. This information can be recorded in

a way that permits ready transfer to computer cards for tabulation. Such a system would provide a highly accurate reading on where the time is going and how the time is distributed at various times of the year. Smaller systems probably do not need that much accuracy in order to establish how time is being used. Larger systems may find it difficult to get an accurate picture of the use of time without such an approach.

In any case, a supplemental approach that will produce more detailed information on tasks performed can be gathered by interviewing counselors. We conducted one such interview, asking the counselor to describe in detail all the activities he engaged in beginning with those on which he spent the largest amount of time and proceeding to the least time consuming. The interviewer asked for clarification or more detail whenever the activity described was not clear. Below is the list of tasks that emerged from this interview. Two or three such interviews could enable the establishment of a relatively common list of tasks which could then be reproduced and distributed to all staff members. Each counselor could then add to or delete from this list according to his own activity analysis and assign the time commitments that reflect his involvements. The list that follows came from a first year high school counselor.

1. College application tasks.

    a) Interview seniors relative to college plans.
    b) Explore college information resources with student.
    c) Answer students' questions relative to information explored.

d) Process college application forms.
   1. Collect student description summaries from teachers.
   2. Edit teacher comments for application.
   3. Complete counselor comments.
   4. Complete parts of application form as requested on the form.

2. Make program changes.

   a) Student or teacher initiated interview to determine problem.
   b) Analyze scheduling system, consider class size, conflicts in schedules, etc.
   c) Give student a form to take to teacher.
   d) Be sure parent letter is received.
   e) Student returns with results.
   f) Results posted on add/drop sheet.

3. Conduct counseling interviews (Student, parent, teacher, or counselor initiated).

4. Informal group counseling with cliques.

5. Formal group counseling to assist on learning problems.

6. Consult with other counselors on student problems.

7. Work on planning teacher in-service workshops ("visibility" activity).

8. Consult with teachers on other than program changes.

9. Consult with parents on other than college or program changes.

10. Inspect records.

11. Interpret records to students, including test scores.

12. Help in test administration.

13. Participate in meetings with other counselors.

14. Serve on high school legislative committee.

This counselor estimated that 35% of his time was devoted to the tasks connected with processing college applications, 25% went to program changes, 25% to counseling activities, and the remaining 15% to the rest

of the activities listed.

It is not difficult to see the possibilities of using this information to raise questions about how these activities relate to the accomplishment of the Student Development Goals and to identify unwritten goals that are implied by the functions carried out.

Another issue that develops from this kind of analysis is that of the sheer efficiency with which certain complex tasks are performed. This becomes particularly crucial when the tasks are more "administrative" or "building" oriented than when they are student oriented. College planning and program planning are largely administrative tasks. (We can put aside for the moment that part of college planning that involves counseling for decision making.) To the extent that such tasks are necessary and important, the issue for a pupil services staff becomes one of whether they are the best personnel to perform the task and/or how might the task be performed more efficiently with correspondingly less time spent by the pupil services staff on those tasks.

The issue of which personnel should be involved is essentially an administrative decision that should take into account information from a contextual evaluation, which includes information generated by the goal stating operations and the functional/task analysis. Such information could lead decision makers to shift certain responsibilities to other personnel.

The issue of how to make an operation more efficient is largely

a problem of systems analysis. In the list of tasks above there is a cursory analysis of the operations performed in making program changes for students. We conducted an in-depth interview with a veteran counselor to get an accurate picture of the operations the counselor and others perform in both planning student programs and making program changes for students later on. These operations consume a lot of the counselor's time in many high schools and an analysis of the operations can sometimes reveal inefficiencies or at least suggest ways in which the operations can be conducted with reduced counselor involvement.

So the process can be followed we will present the interview data and then the flow chart that was developed from this data. In gathering the data, the interviewer makes sure that he understands each step of the process and the sequence in which the steps take place, asking for clarification when it is not clear. The interview data is summarized below in the form of a series of brief descriptive statements.

Counselor meet with large groups of students by grade and alphabet.

Distribution is made of program of studies, program selection sheet, four year planning sheets.

Counselor explains each of these sheets and student fills out program selection sheet at this meeting.

Student gets teacher signatures for sequential courses and for course level changes.

During this time students may also initiate counselor interviews for general information, how to "beat the system", college counseling, or career counseling.

Students get parent's signature on selection sheet.

Sheets returned to counseling office where clerks check on credit requirements, class hours, and signatures.

Counselors double check on credits, class hours, and graduation requirements.

Sheets that have no omissions or errors are ready for the computer.

Sheets with errors or omissions or where a student has never turned in a sheet require an interview with the counselor and/or a phone call to teacher and/or parent for approval, information, or whatever.

After all program sheets are completed they go to the computer to build the master schedule.

When computer identifies schedule conflicts the student is contacted for an interview, the program is reviewed, problem discussed, and program adjusted to fit schedule.

Process is recycled to computer until all conflicts are eliminated.

Flowcharting these operations enables one to see the interrelationships of the entire process, the sequencing of events, and the flow of information or where information blow is blocked. This is an analytical process that breaks the operations down into their separate parts and then relates them to each other within the limitations of the particular system being analyzed. The results of this particular analysis is presented in the flowchart on the next two pages (Figure 11).

The flowchart enables a number of aspects in this system to be viewed more clearly. First of all, of the 12 major subsystems in this

BEDFORD HIGH SCHOOL
PROGRAM PLANNING SYSTEM

Figure 11

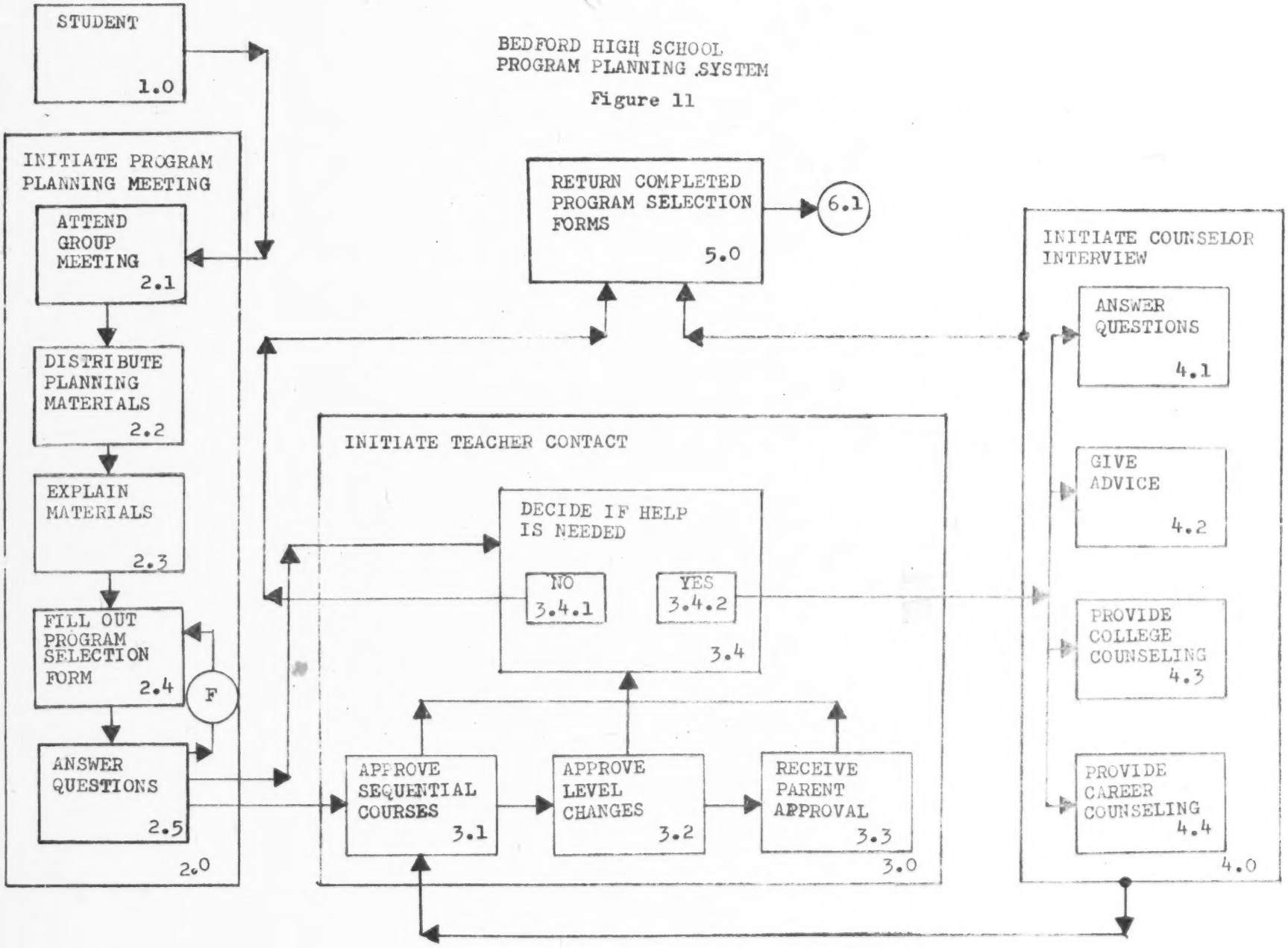
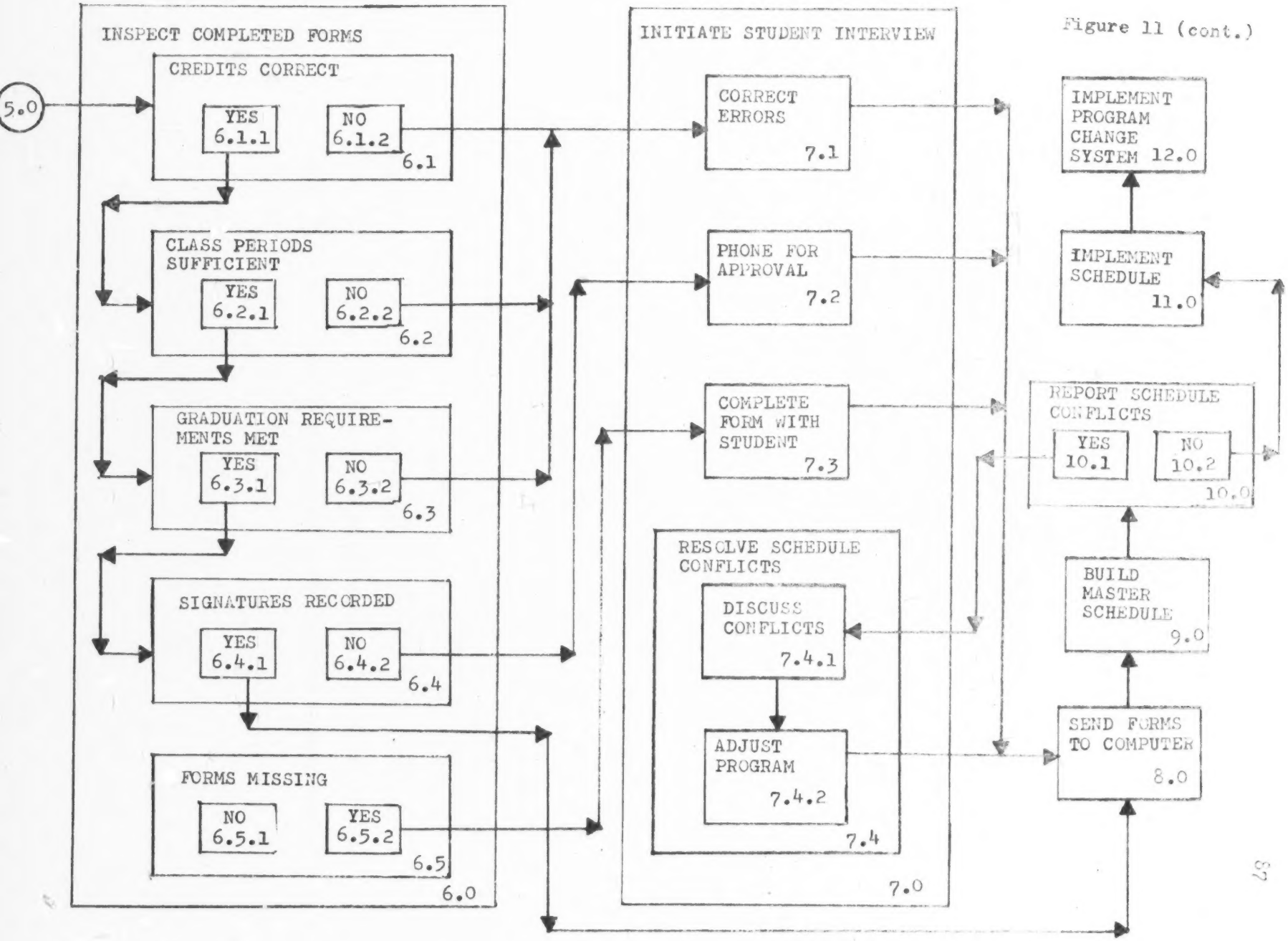


Figure 11 (cont.)



program planning system it would appear that only one requires substantial involvement from the counselors. That would be subsystem 4.0 in which students initiate requests for counseling that stem from a decision that help is needed (3.4.2). Yet in actual fact the counselors have a major involvement in 2.0, 4.0, 6.0, 7.0, and 12.0, the latter actually getting into another time consuming operation of making program changes.

The system itself does not seem to require many operational changes. However, it seems clearly possible to do some things that would reduce counselor time and increase efficiency. Here are the possibilities.

1. Commit the entire process to a self-instructional guide book for students that places the locus of responsibility on them to carry through the planning.

2. Increase teacher involvement for that part of the system that deals with curricular information, course content, sequencing, etc.

3. Use trained para-professional help to make inspection checks for accuracy and signatures, to contact students for needed adjustments, and to act as intermediary with the computer system for the resolution of schedule conflicts.

4. Use counselors as consultants for the resolution of special problems and to provide counseling to students on request for decision making relative to their programs and college and career choices.

The flowchart, along with other related information, is information for decision making that should improve the effectiveness of the pupil services program in relation to the goals established for the program.

Also in the Appendix are the flowcharts that were constructed to locate the "domain of concern" in relation to other relevant domains in the school system. The chart of the Bedford School System locates the Student Development System in relation to other subsystems of the school system. The chart of the Student Development System shows how the various major subsystems of this pupil services system interrelate on a very general scale. You will note on this flowchart that the signal paths do not make the interrelationships very clear. Much more analysis would be required to sort out these complex interactions.

Among the "Functions/Tasks" subsystem in the Student Development System you will note a subsystem on "Program Planning." Our two page flowchart provides a detailed analysis of this one small subsystem of the total Student Development System which, in turn, is but a subsystem of the total Bedford School System, and so on.

Summary

Our purpose in this section, as it has been throughout this report, is to provide potential planners with enough detailed information to see how the systems approach actually works. Much of the information presented in this section may be inherently uninteresting to read but it is the stuff of reality with which any planning must deal. Taken together the different kinds of information generated by these various approaches to functional/task analysis should give you a rather complete

picture of the kind of contextual evaluation information that will improve decision making. By dealing thoroughly and comprehensively with the question of where your program is presently at, you will have a much clearer idea as to where you need to go in order to arrive at the end results you are seeking.

METHODS/MEANS ANALYSIS

The procedures followed for this part of our project are simple to describe. We began by providing the counseling staff with a set of the "Methods-Means Worksheets" and a copy of Wellman's taxonomy of guidance objectives. At the same time we provided them with instructions for assigning priority ratings on the four point scale to each objective.

With this information they were to work in grade level groups (elementary, junior high, senior high) to select high priority objectives from each of the three domains. For each objective they were to specify a target population, operationalized criteria for the objective, one or more possible strategies for implementing the objective, and one or more possible assessment procedures that could be used with the criteria to evaluate attainment of the objective. They were free to revise or rewrite the objectives in any way they wanted or to write new objectives not on the taxonomy. This work was undertaken in the midst of many other end of year demands on the counselor's time and essentially completed in 3-4 weeks. The Project SAGE staff acted as consultants.

In addition to the work of the counselors, Irene Pogue of the SAGE staff worked on a sample career development program for grades K-6, utilizing vocational domain objectives and writing more detailed specifications for two of those objectives. She also created a flow-chart of the program objectives. This project, along with samples of the counselors' work is reproduced below.

Elementary Level

OBJECTIVE: For the student to take responsibility for completing school tasks to the best of his ability (Educational domain)

TARGET POPULATION: All students, K-6

OPERATIONALIZED CRITERIA:

Completing and handing in assignments on time
Meeting academic demands of the classroom
Increasing ability to organize work tasks effectively
Asking questions appropriate to the discussion
Being responsible for use and care of school property
Taking responsibility for school notices going home
Bringing lunch money

SELECTED STRATEGIES:

Student/counselor group discussion on academic requirements
Parent conference and parent/teacher conferences on academic requirements and ability to perform
Encouraging supportive attitude on the part of adult agent involved

ASSESSMENT PROCEDURES:

Observation of behaviors with help of observation rating charts

- -

OBJECTIVE: For the student to become aware of the expected and acceptable patterns of behavior in the school setting (Educational domain)

TARGET POPULATION: All students, K-6

OPERATIONALIZED CRITERIA:

Knowledge of classroom and school rules
Participation in the development of school regulations

SELECTED STRATEGIES:

Student/counselor group discussions on school rules
Parent meetings (by neighborhood) to clarify school requirements
On-going teacher/counselor consultation regarding children not meeting behavior standards
Weekly counselor/principal meetings
Duso puppetry on school functioning
Monthly teacher/principal/counselor grade level meetings to discuss behavior by grade
Referral meetings for specialist intervention in cases where behavior does not seem to be improvable under ordinary conditions

ASSESSMENT PROCEDURES:

Written progress reports
Count of student infractions for being put out of class, or requiring notification of parents, or requiring teacher intervention

- -

OBJECTIVE: For parents to formulate educational expectations for their child that are consistent with his ability and interests (Educational Domain)

TARGET POPULATION: Parents K-6

OPERATIONALIZED CRITERIA:

Realistic knowledge of childs ability

SELECTED STRATEGIES:

Standardized Tests
On-going progress reports - Teacher evaluations - Individual testing where discrepancies between progress and expectations exist (e.g. WISC, HFD, Bender Gestalt)

Conferences with parents (short or long term)
Special program for parents of underachievers (Gilmore)
Parent groups
Referrals to outside agencies
School library, Room mother, aides
Encouraging supportive attitudes on the part of adult agents through counselors and principal's coffee parties, counselor groups, in-service training for teachers.
Diagnosing and recommendations for special education, e.g. educably retarded, language development, perceptually handicapped, emotionally disturbed, which involve completion of forms required by the state

ASSESSMENT PROCEDURES:

Fewer complaints
More willingness to assume parental responsibility when called upon by school

- -

OBJECTIVE: For the student to become aware of his personal characteristics that are related to social acceptance and harmonious interpersonal relationships (Social domain)

TARGET POPULATION: All students K-6

OPERATIONALIZED CRITERIA:

Knowledge of his personal characteristics that are related to social acceptance and harmonious personal relationships

SELECTED STRATEGIES:

Classroom discussion and sharing
Small group discussion and interaction
Individual counseling
Developmental classroom program (e.g. Duso Puppet Program)
Films shown by counselor with discussion groups

ASSESSMENT PROCEDURES:

Sociogram
Playground observations - child who verbalizes lack of friends and can understand why
Reports from parent and teachers of positive change in sibling relationships

- -

Following are the career development objectives with some specifications that were worked out by Irene Pogue for the elementary level.

Goals and Objectives for Career Development, Grades K-6

1.0 Student develops a positive self-concept

- 1.1 Student is able to state his achievements and capabilities
- 1.2 When asked questions about himself, the student responds in a positive way
- 1.3 The student volunteers to show or display his school assignments
- 1.4 The student has more positive than negative experiences when interacting with his peers
- 1.5 When the child is asked to distinguish between the way significant others feel about him as a person and the way they feel about what he does, the child indicates self-esteem by stating that the significant other loves him unconditionally in spite of acts which are disapproved

2.0 Student developes a positive attitude toward work

- 2.1 Student can distinguish between work and play
- 2.2 Student practices effective work habits
- 2.3 Student has a high regard for competence and excellence in all types of work
- 2.4 Student is aware of the concept of work in our society

3.0 Student becomes aware of the world of work

- 3.1 Student can identify and state functions of the highly visible occupations in his immediate environment, home, school, community, and as the child is older, on a national and international basis
- 3.2 Student is aware of the interdependence of occupations
- 3.3 Student is aware that all workers contribute to the welfare of our society
- 3.4 Student becomes aware of the relationship between school and future occupational endeavours
- 3.5 Student knows the extent of education and preparation required for entry to different occupations
- 3.6 Student knows the difference in working conditions among and within occupational families
- 3.7 Student becomes aware of social roles expected at different occupational levels

3.8 Student knows the important factors affecting job success
3.9 Student is aware of extrinsic and intrinsic rewards of different occupations
3.10 Student is aware of the impact of social and technological change

4.0 Student develops self-understanding in relation to future realistic career decision-making

4.1 Student can assess current strengths and limitations in physical skills, leisure time activities, home and school responsibilities and interpersonal relationships
4.2 Student can evaluate his aptitudes and abilities for broad occupational areas
4.3 Student can discriminate among current likes and dislikes in home chores, leisure time, and school activity
4.4 Student develops varied and wide interests
4.5 Student examines occupation in terms of his current life context considering such factors as family background and personal ambitions

- -

OBJECTIVE: Student can identify and state functions of the highly visible occupations in his immediate environment, that is, home, school, community (3.1)

TARGET POPULATION: Grade 2

OPERATIONALIZED CRITERIA:

The student will state fifteen occupations that he has become familiar with at the end of the mini-course on the World of Work
The child is able to state correctly his father's and mother's occupation, and describe verbally what they do, and how they serve the community
Given a number of occupations and tools used in these occupations, the child can match the tool with the holder of the occupation with 80 percent accuracy
Given a symbol belonging to certain occupational groups, the child can match the symbol to the group with 80 percent accuracy
Given common occupations, the child can name two or more ways in which each helps us

SELECTED STRATEGIES:

Mini-course in the World of Work given by the Guidance Counselor
Field trip, and an in-school experience for students to explore occupations, i.e., food service

Role playing occupations using articles or clothing used by various jobs as props for imaginary play
Use of parents, brothers, sisters, dressed in uniform where applicable, as guest speakers to talk informally about their occupations

- -

OBJECTIVE: Student can identify and state functions of the highly visible occupations in his immediate environment, home, school, and community, and as the child is older, on a national and international basis (3.1)

TARGET POPULATION: Grade 6

OPERATIONALIZED CRITERIA:

At the end of a mini-course on Exploring the World of Work the the student will be able to name correctly five job families with which he is familiar
Given a job family, the student will be able to state correctly three reasons why the occupations are considered a family
Given vocational definitions, the child can choose the word or phrase from those given that best fit the definition with 80 percent accuracy
After completing a notebook on an occupation selected by the child, he will be able to complete a test asking questions about the working conditions and preparation for entry into that occupation with 80 percent accuracy
After a field trip to a hospital, each student will be able to formulate a job family in the health services occupations with a minimum of ten occupations
During the unit on Building Trades, the student will interview a person employed in these trades, and then will write a report that will answer ten questions about the occupation
Given a rating scale exploring student attitudes regarding various occupation before and after the min-course on Exploring the World of Work, 80 percent of the student's scores will increase indicating more openness in that direction

SELECTED STRATEGIES:

Mini-course on exploring the world of work focusing on job families given by either the Guidance Counselor of Classroom teacher
Reference: A Guide for Developmental Vocational Guidance Grades K-12, The Oklahoma State Department of Education, 1968

The flowchart for this career development program may be found in the Appendix.

Junior High Level

OBJECTIVE: For the student to actively seek to discover new educational opportunities that are open to him. (Educational domain)

TARGET POPULATION: All students, 7-8

OPERATIONALIZED CRITERIA:

Student will search for new educational opportunities to supplement those he receives in regular scheduled classroom involvement

SELECTED STRATEGIES:

Establishment of a career development center (with supportive equipment and materials) within the LRC

ASSESSMENT PROCEDURES:

Participation in learning situations outside of classroom
Participation in LRC activities
Utilization of career development aids (LRC)
Teacher observations

- -

OBJECTIVE: For the student to become competent in skills that are needed for effective functioning in his social groups, i.e., family, peers, etc. (Social domain)

TARGET POPULATION: All students, 7-8

OPERATIONALIZED CRITERIA:

Demonstrated mastery of skills needed for effective functioning in social groups - skills such as cooperation, compromise, and active participation in the interest of the group

SELECTED STRATEGIES:

Group discussions structured around:

a. Reading from "Coping with" book series (in guidance library)
b. Film strips
c. Student chosen topics
Role playing of various social institutions
Listening to records, doing workbooks, etc., as part of program provided by "Social Sciences Laboratory Kit" (on Order)
Counselor presentation of the results of the TED test to the individual student and attempts to ellicit from the student alternate ways of solving the developmental tasks depicted in the TED test. (TED test objectively assesses child's ability to effectively deal with tasks of socialization, aggression, trust, etc.)

ASSESSMENT PROCEDURES:

Teacher evaluation
Sociograms
TED Test
CTP

- -

OBJECTIVE: For the student to develop self-confidence as an autonomous, self-actualizing individual (Social domain)

TARGET POPULATION: All students, 7-8

OPERATIONALIZED CRITERIA:

Expressed positive feelings towards self. Demonstrated capabilities of functioning alone in a creative, fulfilling manner

SELECTED STRATEGIES:

Success experiences in social and academic areas
Positive reinforcement for independent, responsible behavior
Group approaches to social and academic learning

ASSESSMENT PROCEDURES:

Observation
Interview
CTP
TED

- -

OBJECTIVE: For the student to become aware of vocational interests, requirements, and training facilities (Vocational domain)

TARGET POPULATION: All students, 7-8

OPERATIONALIZED CRITERIA:

The student will have a knowldege of job requirements, opportunities and placement facilities available for him.

SELECTED STRATEGIES:

General material on vocations (Job Ahead Series)
Visits to selected and varied industrial complexes
Talks and job descriptions by members of local industries and probable employers
Information from Federal Employment Office and Department of Rehabilitation
Utilization of LRC Career Development facilities

ASSESSMENT PROCEDURES:

Check list of job interests
Kuder Vocational Interest Test
Evaluations by IA teachers, Home Ec., Art, and Music departments
Personal and character observations by regular teachers and specialists

- -

OBJECTIVE: For the student to become aware of his educational and vocational interests (Vocational domain)

TARGET POPULATION: All students, 7-8

OPERATIONALIZED CRITERIA:

Ability to verbalize educational and vocational interests

SELECTED STRATEGIES:

SRA - Job Ahead Series - lessons
Guidance Library - Browsing time
Classroom exercise in reading about, research, writing about careers

ASSESSMENT PROCEDURES:

Student inventory
Successful completion of a report on a chosen career (in social studies or language arts
Kuder Occupational Interest Inventory

OBJECTIVE: For the student to become aware of the requirements for graduation (Educational Domain)

TARGET POPULATION: All students, K-12

OPERATIONALIZED CRITERIA:

Student is involved in selecting his courses each year and is given a program of studies indicating requirements for graduation

SELECTED STRATEGIES:

Program of studies is published which outlines the specific requirements for graduation

ASSESSMENT PROCEDURES:

Students are meeting requirements for graduation

- -

OBJECTIVE: For the student to seek actively to discover new educational and life opportunities that are open to him (Educational domain)

TARGET POPULATION: All students, 9-12

OPERATIONALIZED CRITERIA:

Uses library to seek information. Utilizes career files, college catalogs, and other resource materials in counseling suite
Responds to such orrerings as career conferences, meetings with college representatives, summer school enrichment courses.
Participates in extra-curricular activities

SELECTED STRATEGIES:

Publicize and make available resources which will stimulate students to seek new educational and life opportunities

ASSESSMENT PROCEDURES:

Observation by librarian, teacher, and counselor
Student's degree of involvement is generally manifested in student/counselor session.

OBJECTIVE: For the student to feel that he can contribute to and gain from his educational program (Educational domain)

TARGET POPULATION: All students, 9-12

OPERATIONALIZED CRITERIA:

Shares relevant experiences with classmates. Brings pertinent material to class to supplement text and to stimulate the interest of others. Chooses courses which seem appropriate to his interests and goals with increasing confidence and does not rely extensively on parental, teacher, peer or counselor assistance.

SELECTED STRATEGIES:

Student involvement encouraged
Student contribution encouraged in classrooms, in curriculum development and in policy making by inclusion of students in the policy making structure of the school

ASSESSMENT PROCEDURES:

Teacher observation in class
Counselor observation in program planning and student/parent conferences
Student encouraged to assess orally or in writing the extent of his own involvement, contributions and gain.

- -

OBJECTIVE: For the student to become aware of the concept of work in our society, the occupational structure, and significant trends (Vocational domain)

TARGET POPULATION: All students, 9-12

OPERATIONALIZED CRITERIA:

Student will name his tentative career choice and describe verbally the life style this occupation and be able to state the occupational trends of that particular occupation as forecast by the Occupational Outlook Handbook
Reference boods and career information are used by the student in career planning. Career conferences and career day are available and attended by students.

SELECTED STRATEGIES:

Group vocational counseling, career education and placement services are available for all students.

ASSESSMENT PROCEDURES:

Students are seen in groups and given Kuder Interest Inventories.
Placement services in the counseling department are effectively used by students for part-time and full-time jobs.

OBJECTIVE: For the student to become aware of the preparation requirements and needed skills at different occupational levels. (Vocational domain)

TARGET POPULATION: All students, 9-12

OPERATIONALIZED CRITERIA:

Students use career reference materials including the Dictionary of Occupational Titles, Occupational Outlook Handbook, and Quarterly Occupational Outlook
Students enroll in college preparatory, business, home economics, industrial arts, art, music programs

SELECTED STRATEGIES:

Provide programs and career education to teach occupational information and skills.

ASSESSMENT PROCEDURES:

Students are given tests and questionnaires regarding requirements and skills for various occupational levels.

- -

OBJECTIVE: For the student to make tentative choices of occupational areas (Vocational domain)

TARGET POPULATION: All students, 11-12

OPERATIONALIZED CRITERIA:

Student becomes active participant in Work Education program
Student selects job related to course selections, his expressed interests, and potentialities indicated on various tests
Student apprentices himself to person working in a certain career area ranging from a typesetter, to foundryman, to teacher, to artist, to stock broker.

SELECTED STRATEGIES:

Enlarge work-education program by coordinating with local businesses and industries
Get list of company volunteers to act as supervisors for apprentices

ASSESSMENT PROCEDURES:

Student does all above

OBJECTIVE: For the student to become aware of his personal characteristics that are related to social acceptance and harmonious interpersonal relationships (Social domain)

TARGET POPULATION: All students, 9-12

OPERATIONALIZED CRITERIA:

Group and personal verbalization by the student of his own characteristics and qualities of his interpersonal relationships
Group and personal discussion of general qualities deemed socially acceptable and unacceptable by student's own group and society in general

SELECTED STRATEGIES:

Personal and group counseling

ASSESSMENT PROCEDURES:

Give and evaluate California Test of Personality
Observation of students in class and school activities by counselors and teachers

- -

OBJECTIVE: For the student to become aware of the skills needed for effective functioning in his social group such as cooperation, compromise, and respect for others (Social domain)

TARGET POPULATION: All students, 9-12

OPERATIONALIZED CRITERIA:

In group situations, student does not dominate discussion but listens to others as well as self
He does not denigrate expressed ideas of others but shows respect for them even though he may disagree
He does not refuse to participate in group situations because others do not share his views
He appears interested in the group task at hand and can sublimate self-interest through involvement

SELECTED STRATEGIES:

Introduction of student to fundamentals of group behavior by counselor in group sessions and by teacher in classroom
Practice in group interaction with student assessing his own performance

OBJECTIVE: For student to evaluate opportunities for social affiliation and to choose social groups that fulfill his needs (Social domain)

TARGET POPULATION: All students, 9-12

OPERATIONALIZED CRITERIA:

Student enters free and open discussions with significant others in various settings such as classroom, home, youth groups, activity groups
Student joins one or more groups

SELECTED STRATEGIES:

Group counseling with all significant others
Personal counseling

ASSESSMENT PROCEDURES:

Observation, verbal and written reports by significant others
Continued participation in one or more groups

- - - -

LEARNING RESOURCE CENTER: A SELECTED STRATEGY

Project SAGE left a legacy to the Bedford system in the form of established goals for the overall program and, in particular, for the Division of Student Development. It remained for the staff and administration of the system to propose program development that would set the course for the school in directions suggested by these goals. We will examine here, in some detail, a major student development proposal that is now in its pilot stage, namely, the Learning Resource Center (LRC).

The center was designed to accomplish a number of the inter-related goals of the student development program as established by Project SAGE. This strategy is being tested out, on a pilot basis, during the academic year 1972-73 and will be evaluated for possible expansion and full implementation K-12 in subsequent years.

General Description

The facilities being utilized for the pilot program consist of a six room counseling suite at the Junior High School (one of which has been refitted as an intern-training observation room); the reading development room; a small gymnasium room off the main gym, and an empty classroom. These facilities are in the same immediate area and will be supplemented, as finances permit, by the addition of a large area at the lower level of the Junior High School that will be properly equipped for the purpose. In addition, a portion of the library adjoining the present counseling area will be screened off and refitted with the proper software and hardware to function as a learning resource library.

The eventual purpose of the LRC is to maximize the potential of the system to meet the SAGE goals, particularly as they relate to learning disabled (LD) students.

Initially the LRC will direct its resources to the learning disabled student population, those formerly labelled emotionally disturbed, retarded, SLD, and similar categories. The ensuing years of operation would see its effect spreading throughout the system, enhancing the ability of all learners within the learning system to cope with role demands.

Operational Description

The pilot program will schedule LD students into regular classrooms wherever physical and/or psychological limitations allow. Contrary to similar efforts in the past, however, the LRC will supplement these placement activities with consulting staff and supportive faculty and student interns. Present Junior High School Student Development staff are being assigned to the following LRC activities:

1. Direct consultation with classroom reachers resulting in individualized curriculum being developed, within the subject format, to meet the needs of LD students assigned to those classes.

2. Direct consultation with administration resulting in program proposals that will further the development of effective programming for the LD student.

3. Classroom participation, as lecturers, to acquaint student body with range of individual differences, learning development techniques, development of coping skills, etc.

4. Involvement as working committee to review, evaluate and extend the LRC program.

Junior High teaching staff are participating, for increment credit, in the LRC intern training program and will be assigned to individual or small groups of LD students as tutorial/supportive staff during their 12-week internship period. This assignment will be a two-hour per week basis

at the minimum and will serve the dual purpose of assisting the LD student to cope with the demands of the system while, at the same time, acquainting the Junior High faculty, on a first-hand basis, with the learning problems of LD students. The carry-over of the experience into their regular classrooms is expected to greatly improve instruction. The initial training program also includes some women from the local community.

High school students have also been selected to participate, for credit, in a student intern training program. An effort is being made to recruit former LD students for this training. Upon completion of their training program, the students will be assigned as support personnel operating under direct faculty supervision with individual LD students. The LRC committee will decide on individual placement and hours involved. Placement can be within the classroom, in the life skills, developmental art, developmental music, the LRC complex, or in the community.

To develop programs that will be more functionally aligned with the learning needs of the LD students to whatever degree their disability is expressed, the following activities are being carried out:

1. The LRC Committee meets weekly to evaluate progress in implementing program proposals and to generate further proposals.

2. A pilot life skills program is in operation. The primary goal of this program is to provide the LD students with appropriate physical activities, exercises, and follow-up group discussion resulting in strengthened coping skills.

3. A pilot developmental art program is in operation. The primary goal of this program is to enable each LD student to achieve through his own self-directed, creative efforts an extended frame of reference about himself and his relation to his environment.

4. A proposed music development program is in the planning stage.

The LRC program is conceived of as a "school within a school" in which the faculty and administrative staff participating act as catalytic agents within the larger learning system to bring about innovation and change. The task of the participating faculty is to interpret the demands of the learning system as individualistically as possible. The program will carry an important focus on both social and career development.

The LRC staff of the "school within a school" will act as supportive and resource personnel available to the student whenever he finds himself having difficulty in meeting the demands of the system. While the initial efforts are directed at the learning disabled student, the LRC concept is applicable to the total student body and will be extended in that direction as soon as feasible. In addition, the faculty are also considered active learners along with the students, thus enhancing the involvement in the total learning process.

Examples of Goals and Objectives for the Life Skills Program

One phase of the LRC program alluded to above is the Life Skills Program which emphasizes physical activities and group discussion as the major means for implementing the goals of this particular program. We feel that the goals and objectives of this program are especially well defined and particularly relevant to several of the major Student Development Program goals cited earlier.

Life Skills Program Goals and Objectives

1. To increase the child's capacity for self-challenge by providing opportunities for testing limits and for moving beyond previous expectations.

    1.1 The child will recognize and accept his or her physical capacities.
    1.2 The child will have realistic expectations of his or her physical abilities.
    1.3 The child will set and meet physical self-challenges.
    1.4 The child will accept failure constructively - graciously.
    1.5 The child will accept success constructively - graciously.
    1.6 The child will function well within a competitive situation.
    1.7 The child will recognize true self-worth not based on physical, emotional or intellectual capacities.

2. To enhance the child's awareness and use of the physical resources of the organism by offering activities and exercises for body awareness, balance, control, and coordination.

    2.1 The child will have increased body control.
    2.2 The child will have a good sense of balance.
    2.3 The child will have a good sense of rhythm.
    2.4 The child will have increased sensory awareness.
    2.5 The child will have increased coordination.

3. To broaden the child's behavioral repertoire by providing a supportive laboratory for observing and experimenting with old and alternative forms of social interaction.

    3.1 The child will be able to clarify the thoughts and feelings that arise in program activities.
    3.2 The child will be able to provide and to receive feedback to and from other children in program discussion groups.
    3.3 The child will be able to deal with emotions such as fear, anger, hurt, and frustration in a constructive manner.
    3.4 The child will be able to express feelings of concern, care and warmth to others in program discussion groups.
    3.5 The child will help others to set and to meet physical challenges.
    3.6 The child will be able to cooperate with others to achieve shared goals in program activities.
    3.7 The child will trust his peers in program activities and discussion groups.

4. To foster the child's sense of mastery and skill development by offering instruction in enjoyable activities.

    4.1 The child will acquire skills in physical activities suitable for individual play.
    4.2 The child will acquire skills in physical activities suitable for couple's play.
    4.3 The child will acquire skills in physical activities suitable for team play.
    4.4 The child will master skills appropriate to his physical capacity and needs.

CONCLUDING COMMENTS

The purpose of this manual was to provide a systematic set of procedures for planning, developing, and evaluating a guidance or pupil personnel services program in a school system, and to show how some of those procedures were designed and tested out in a school setting. The intention was to make the written explanations sufficiently explicit so that readers would know enough to be able to try out the procedures and modify them to meet their own needs and situation.

For any of these intentions to be realized guidance and pupil personnel staffs must be committed to a program that will be accountable in some sense of the word to a set of agreed upon goals. And a major part of that commitment must be in the form of time and resources allocated to the planning and evaluation activities. This means administrative support and community support. We hope that if that kind of support is forthcoming this manual will go a long way toward providing you with the technical know-how to implement a systems approach to planning, development, and evaluation in the complex field of human services.

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APPENDIX A

GUIDANCE MODE-FUNCTION SURVEY

The relatively brief and simple survey that follows was developed from a model of guidance functions described by Merville Shaw.* The results of the survey will enable us to get a clearer picture of the general functional direction of the counseling services at each level of the system. The survey will also reveal whether or not there are any significant differences between the way the counseling services operate at different levels and in the viewpoint of different counselors. And, finally, the survey will reveal whether or not there are any conflicts between an espoused theoretical general mode and the functions that are actually performed.

The survey carries no connotations as to the "goodness" or "badness" of any function or direction. This is simply a convenient way to determine fairly systematically where we "are at" so that the further discussion can be conducted about what we are doing.

You need not sign your name to the survey, but should indicate on the survey whether you are an elementary, junior high school, or senior high school counselor or some other pupil personnel worker.

*Shaw, Merville C. School Guidance Systems, Boston: Houghton Mifflin Co., 1973.

Definitions of Functions

Individual Counseling: Counseling on a one to one basis with any individual, including students, teachers, or parents with the intent of either remedying existing problems or preventing problems from occurring. DO NOT INCLUDE such activities as programming of students and job, class, or college placement, unless actual career counseling is involved.

Group Counseling: Any form of group or multiple counseling with any groups of individuals - teachers, parents, students - for the purpose of remedying existing problems or preventing problems from occurring. DO NOT INCLUDE GROUP MEETINGS for the purpose of giving information - test, career, or educational.

Consultation: Can take place with a wide variety of clients. Entails less personal involvement and investment than counseling and has as its primary aim influencing the behavior of a third party. Consultant role is more likely to be didactic and advisory.

Testing and Appraisal: The function here is diagnosis, individual, group, class or school system. It refers to your use of test information, not time spent administering and recording test scores.

Curriculum Development: Any activity related to the curriculum that stems from the counselor's knowledge of child development, academic achievement, human ability, effects of environment on academic performance, principles of learning, and classroom testing.

Provision of Information: Any activity for the primary purpose of giving information on jobs, careers, colleges, training, etc. Included here would be time spent organizing and updating the information services and materials.

In-Service Training: Participation in providing in-service training to teachers and/or administrators in such things as testing, principles of learning, etc.

Articulation: Participation in activities designed to smooth the transition from one school to another. This could include counseling interviews as well as group sessions, visits to the new school, etc.

Use of Records: Utilization of records for purposes of evaluation, diagnosis, or other purposes in the guidance program. Not included is time spent putting information into records.

Referral: This activity is to include any of the following types of referral: with a single school unit, as from one counselor to another; within the district but out of a given school; and to a source outside the school district.

Evaluation and Research: Time spent evaluating the guidance program or conducting research related to evaluation or to program development. Follow-up surveys of graduates is just one typical example of an activity under this heading.

Check one: ____Elem Couns., J.H.S. Couns. ____ H.S.Couns.____ Other ____
(Specify)

1. Below are brief descriptions of six primary modes by which a guidance program might function. Assume that a primary mode of functioning would encompass a minimum of 75% of the time and res urces of the guidance department. You are to rank order these six modes according to how you would value the expenditure of 75% or more time operating in that mode. Assign the most valued mode #1 and the least valued #6.

Rank Order	Description of Mode
_____	Providing relevant services to adults in the child's school environment.
_____	Direct intervention with children primarily through group procedures.
_____	Consultation with significant adults regarding problems of children at an early stage in the development of those problems.
_____	Direct services, primarily individual counseling, to children with incipient problems.
_____	Placement of children with special problems in a special class setting.
_____	Direct intervention, primarily through counseling and psychotherapy, with children needing long term treatment.

Now place an X next to the mode that represents the primary mode of the guidance unit you presently function in (e.g. elementary, jr. h.s., sr. h.s.).

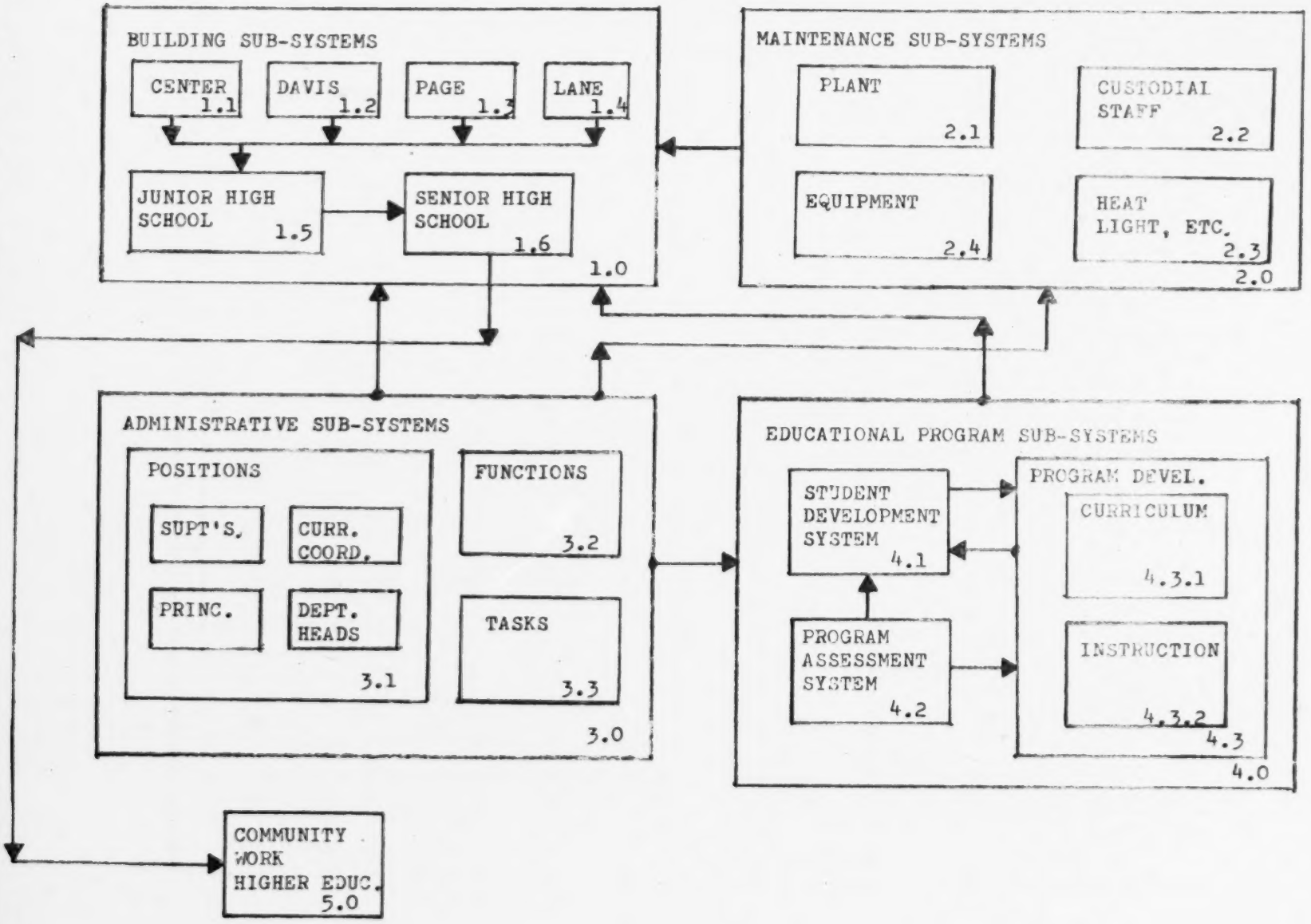
Next to the mode you marked with an X, place the percentage of time and resources you feel is actually devoted to that mode by the guidance unit you belong to. This percentage should be greater than the percentage you would assign to any other single mode.

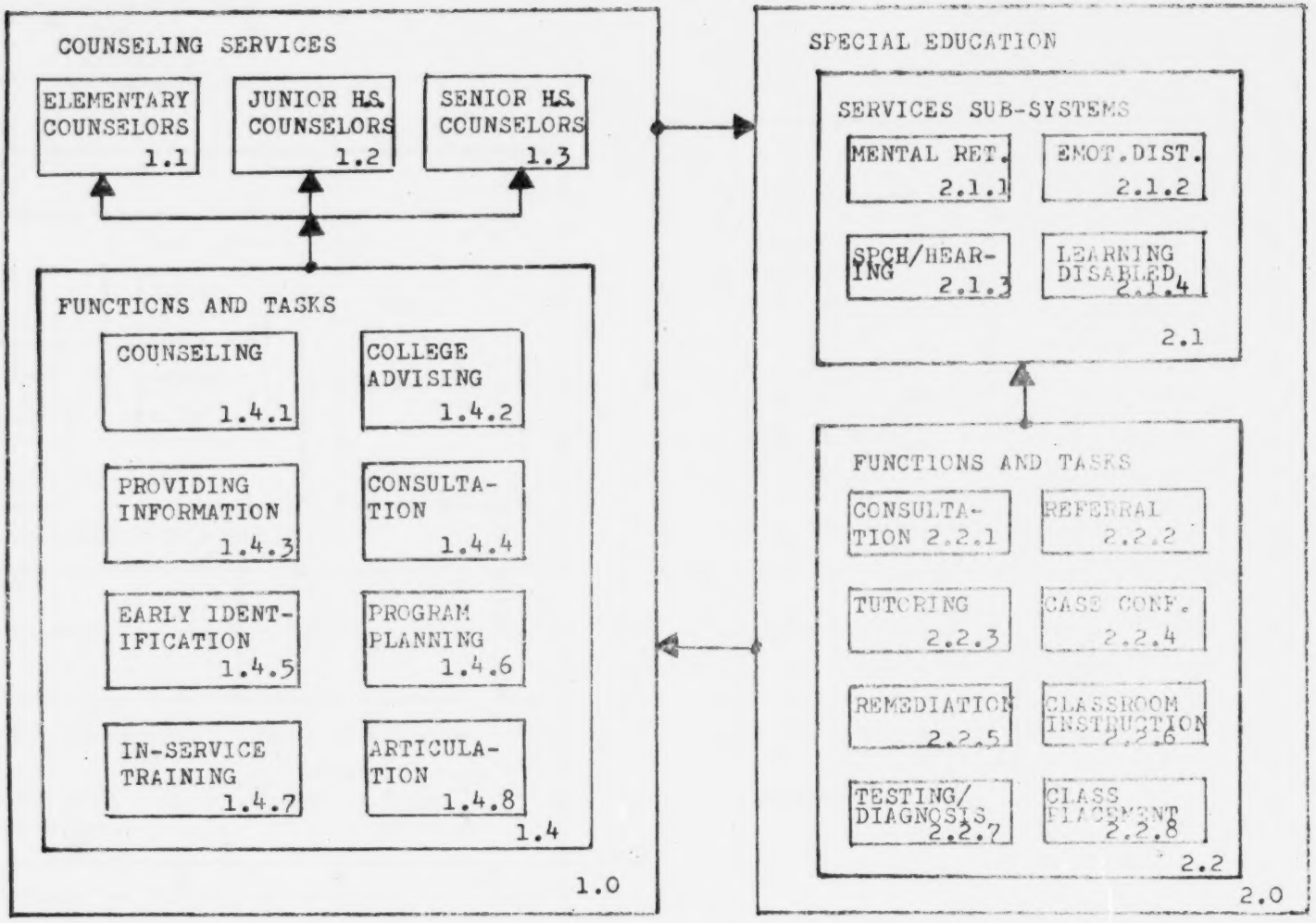
2. Assume for purposes of this survey that these functions listed below are discrete or non-overlapping and that they include all the professional functions you perform on the job. Indicate the proportion of time actually spent on each function over the course of a year such that the total adds up to 100%. Place these proportions on the left hand side. On the right hand side do the same thing according to what you would consider the most desirable allocation of time from your point of view. (Definitions of these functions are listed on a preceding page.)

Actual		Desirable
_____	Individual counseling	_____
_____	Group counseling	_____
_____	Consultation	_____
_____	Testing and appraisal	_____
_____	Curriculum development	_____
_____	Provision of information	_____
_____	In-Service training	_____
_____	Articulation	_____
_____	Use of records	_____
_____	Referral	_____
_____	Evaluation and research	_____

APPENDIX B

BEDFORD SCHOOL SYSTEM



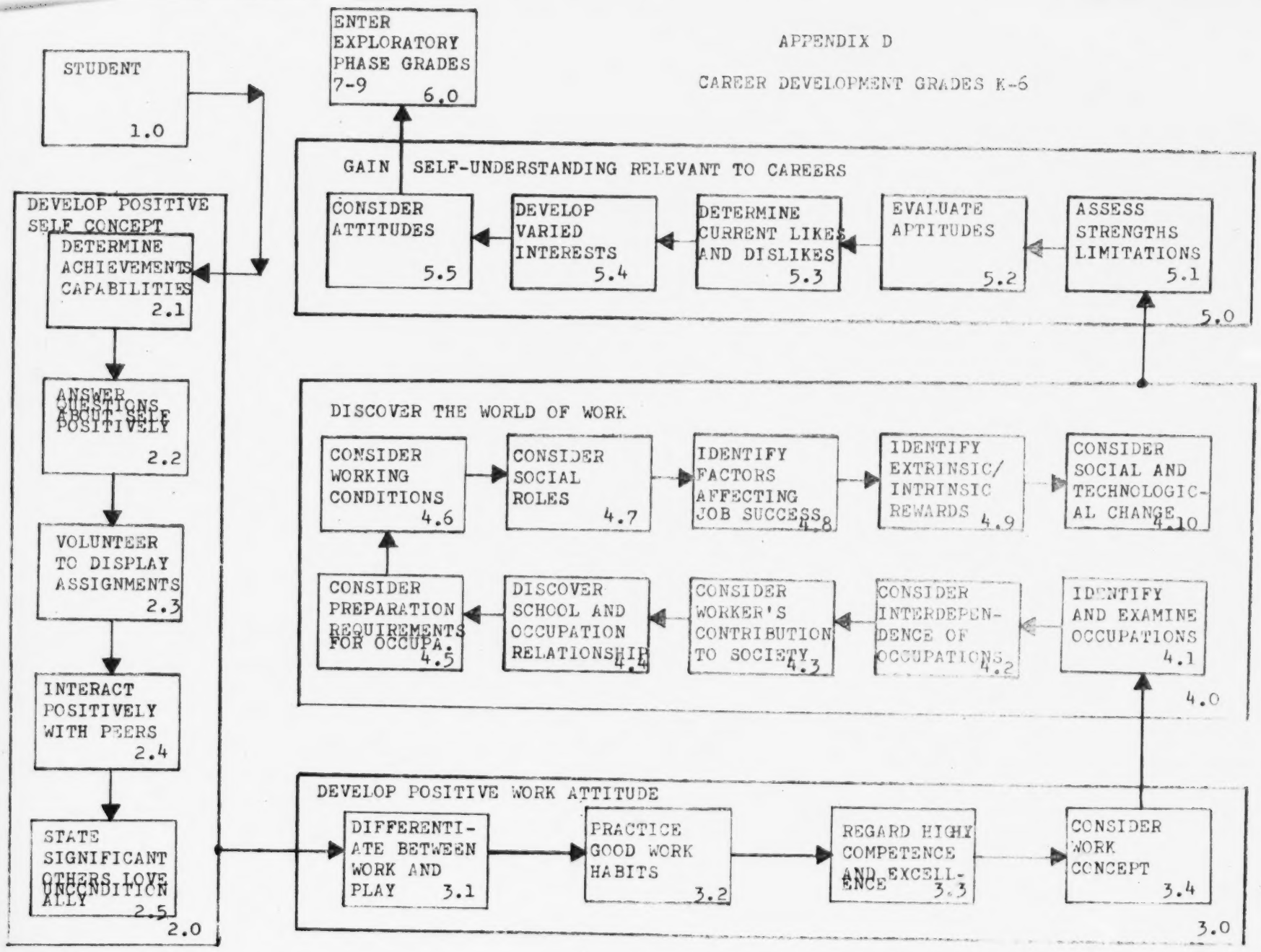


APPENDIX C

STUDENT DEVELOPMENT SYSTEM

APPENDIX D

CAREER DEVELOPMENT GRADES K-6


STUDENT 1.0
ENTER EXPLORATORY PHASE GRADES 7-9 6.0
GAIN SELF-UNDERSTANDING RELEVANT TO CAREERS
CONSIDER ATTITUDES 5.5
DEVELOP VARIED INTERESTS 5.4
DETERMINE CURRENT LIKES AND DISLIKES 5.3
EVALUATE APTITUDES 5.2
ASSESS STRENGTHS LIMITATIONS 5.1
5.0
DEVELOP POSITIVE SELF CONCEPT
DETERMINE ACHIEVEMENTS CAPABILITIES 2.1
ANSWER QUESTIONS ABOUT SELF POSITIVELY 2.2
VOLUNTEER TO DISPLAY ASSIGNMENTS 2.3
INTERACT POSITIVELY WITH PEERS 2.4
STATE SIGNIFICANT OTHERS LOVE UNCONDITIONALLY 2.5
2.0
DISCOVER THE WORLD OF WORK
CONSIDER WORKING CONDITIONS 4.6
CONSIDER SOCIAL ROLES 4.7
IDENTIFY FACTORS AFFECTING JOB SUCCESS 4.8
IDENTIFY EXTRINSIC/ INTRINSIC REWARDS 4.9
CONSIDER SOCIAL AND TECHNOLOGICAL CHANGE 4.10
CONSIDER PREPARATION REQUIREMENTS FOR OCCUPA. 4.5
DISCOVER SCHOOL AND OCCUPATION RELATIONSHIP 4.4
CONSIDER WORKER'S CONTRIBUTION TO SOCIETY 4.3
CONSIDER INTERDEPENDENCE OF OCCUPATIONS 4.2
IDENTIFY AND EXAMINE OCCUPATIONS 4.1
4.0
DEVELOP POSITIVE WORK ATTITUDE
DIFFERENTIATE BETWEEN WORK AND PLAY 3.1
PRACTICE GOOD WORK HABITS 3.2
REGARD HIGH COMPETENCE AND EXCELLENCE 3.3
CONSIDER WORK CONCEPT 3.4
3.0